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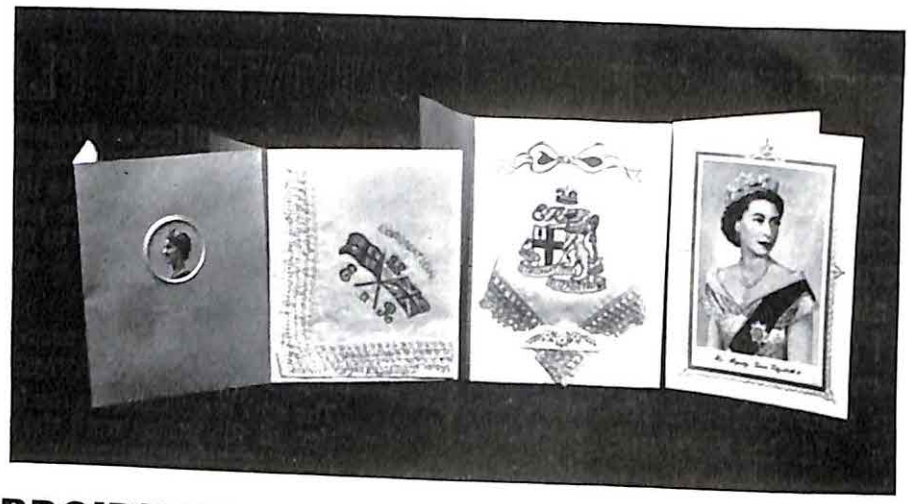

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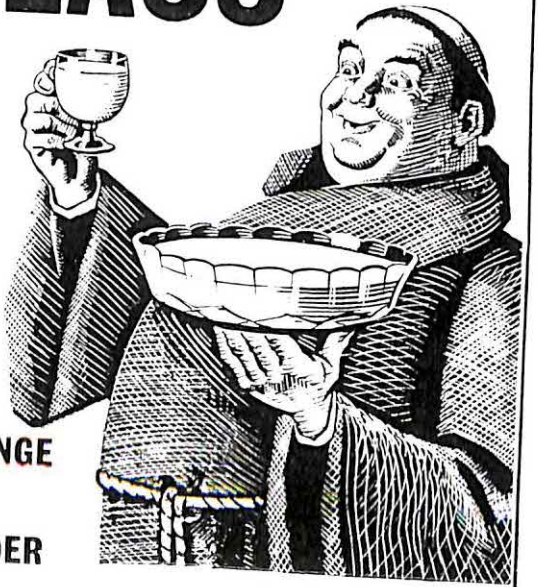

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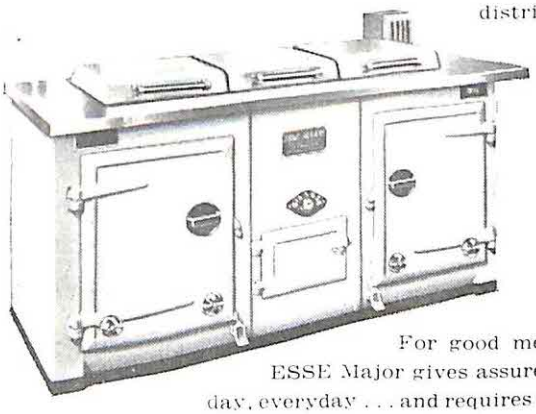

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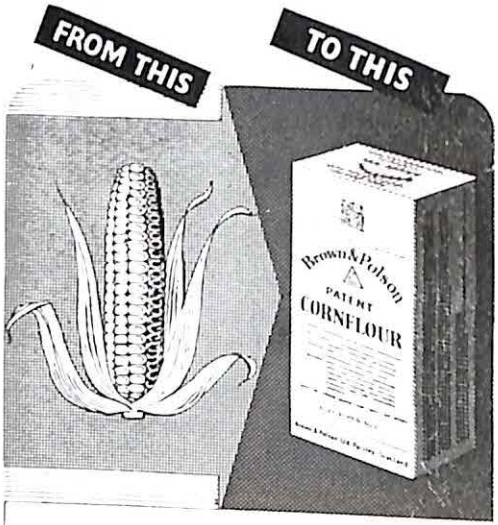

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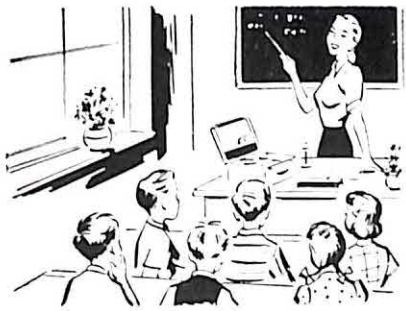

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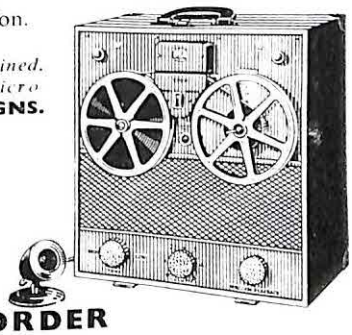

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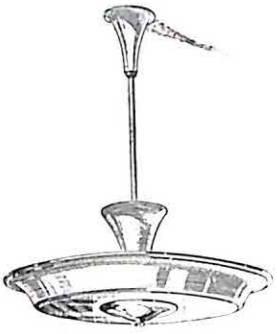

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13 No. 1 January, 1953

CONTENTS

Finnish Schools—*a schoolmaster describes his tour of school buildings in Scandinavia* 10

C. L. Berry explains how **The New Education Bill** *affects the administration of independent schools* 13

Are our Schoolchildren Healthier?—*Dr. R. E. Smith examines a report issued by the Ministry of Education* 15

Readers write to the Editor 17

F. A. V. Madden considers **Projects, Histories and Secondary School Selection** 18

People and Events 19

This School Built a Forestage 20

A School Doctor analyses **The Dangers of Getting Wet** 22

Foreign Foods—*a report of new equipment and interesting foods seen at the "International Kitchen"* 25

and Mrs. Midgley suggests some **Recipes from Abroad** *to brighten the school menu* 26

Maintaining Football and Hockey Pitches—*by W. E. Shewell-Cooper, M.B.E.* 28

The Best Way to use Hedges—*continuing the article held over from the last issue* 29

The Editor and Management are always pleased to offer the hospitality of their columns to readers for contributions to their editorial or correspondence columns, but it must be understood that they do not necessarily hold themselves responsible for, or agree with, the opinions expressed in such contributions. Contributions should be addressed to The Editor, SCHOOL & COLLEGE MANAGEMENT, 18-20 York Buildings, Adelphi, W.C.2.

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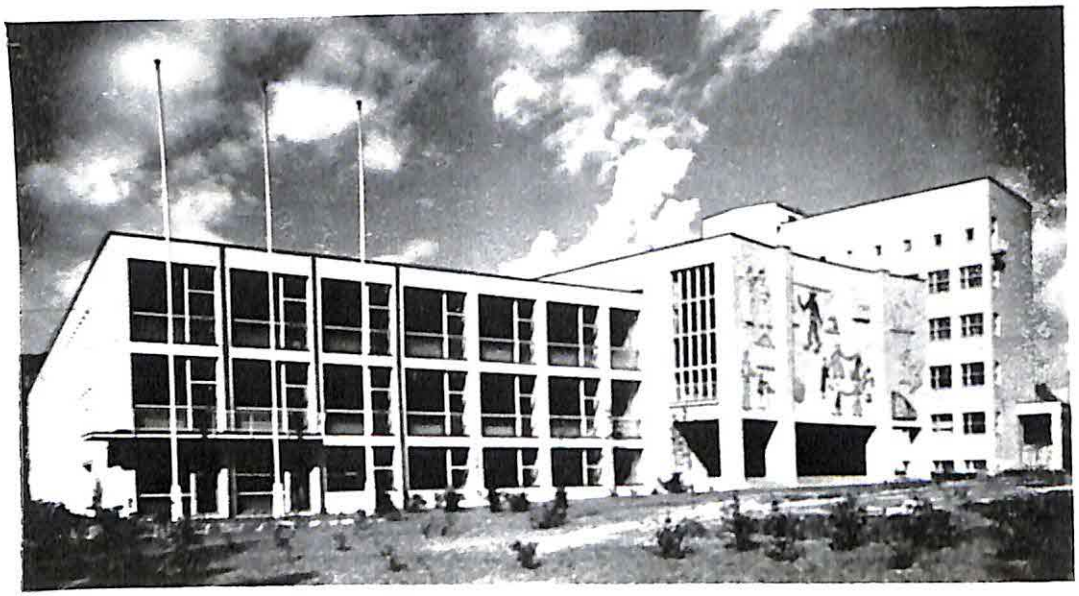

W. J. Mulgrew, a midlands schoolmaster who recently toured Scandinavian schools, describes some of the many points that surprised and impressed him about —

FINNISH S

WITH three months leave of absence with pay granted by a benevolent L.E.A. (the City of Birmingham Education Committee), I was able to make a journey in the summer of 1952 through Sweden, Finland and Norway.

Before I set off I determined to see something of the schools in these three countries, for as a teacher of many years' experience I had read much concerning the progressive nature of Scandinavian schools, both educationally and architecturally. But Finland was a closed book to me, and frankly I did not expect to see very much there.

This rather grim mental picture of Finland was based on what I had read of Finland's part in the War, and the devastation of Finnish Lapland in 1944 by the retreating German troops, who carried out a "scorched earth policy." Lastly, at the Armistice in 1944, Russia had handed vanquished Finland the heaviest reparations bill in history—11 per cent of her national income for eight years. All this led me to believe that I should find a country unable to develop any social services until its debts had been paid.

During the trip to Helsinki by sea from Stockholm, my pessimism was deepened when the ship had to sail south into the Gulf of Finland to prevent our prying eyes from seeing anything of Porkkala, the 150 square mile Russian concession on the coast just west of the capital!

But the fact is that falling back on one commodity that they have never been short of—"sisu" (an untranslatable word—but "guts" is near enough), the Finns have so mobilised their manpower, raw materials and industry that the reparations bill was paid to the last penny in September, 1952, and a huge world demand at the highest known prices for her timber and its by-products has produced a wave of prosperity.

Despite the loss of 17,000 square miles of territory to the Russians, Finland still has the sixth largest land space in Europe and the third smallest population of any country, yet all the new schools I saw were multi-storey buildings. This is in sharp contrast to our recent policy in land-hungry Great Britain where single-storey schools are considered "de rigeur."

Remarking on this to a Finnish acquaintance, and saying that we considered staircases to be undesirable where there were children,

SCHOOLS

he answered: "But surely, they have stairs at home?"

The schools of Helsinki are well up to the standard set by Finland's neighbours in the west. The cool, clean lines, the great glazed surfaces which banish all gloomy corners from the interiors are all there. I felt that in these new schools there was a true synthesis. The arts and crafts had been brought together to form a harmonious whole. This seemed to be particularly true of the Commercial High School with the large symbolic terra-cotta figures on the exterior walls. These are, I believe, the products of the famous Arabia pottery works in the north-east of the city.

Much imaginative use is made of their traditional material in Finnish schools, and although plaster walls are gaily painted, often in contrasting colours, and murals by well-known artists are common, timber used indoors is rarely hidden under paint, but clear-varnished to show fascinating grain patterns.

Artists of the stature of Gallen-Kallela set the fashion in the matter of executing murals in minor public buildings, and I was privileged to see his huge work from the Kalevala epic in the "Students' House" in the Mannerheimintie.

I noticed too that playgrounds were equipped with apparatus that has given joy to children in all countries throughout the ages. Finnish law regarding swings and see-saws must be both more realistic and benign than in this country, where the installation of such appliances by education authorities or head teachers can lead to litigation in the event of mishap.

From Helsinki I journeyed through the endless tall conifers and intricate lake system of south and central Finland to the provincial town of Kuopio on the shores of Lake Kalavesi. There I stayed with Mr. Ari Korhonen, head of the local Folkskola.

It was here that I saw the older wooden single-storey schools which are built on granite blocks. This is a ubiquitous type of rural architecture, the outer walls being painted bright red. Rather surprised at the startling effect of this, I was assured that the lavish use of primary colour was a typical

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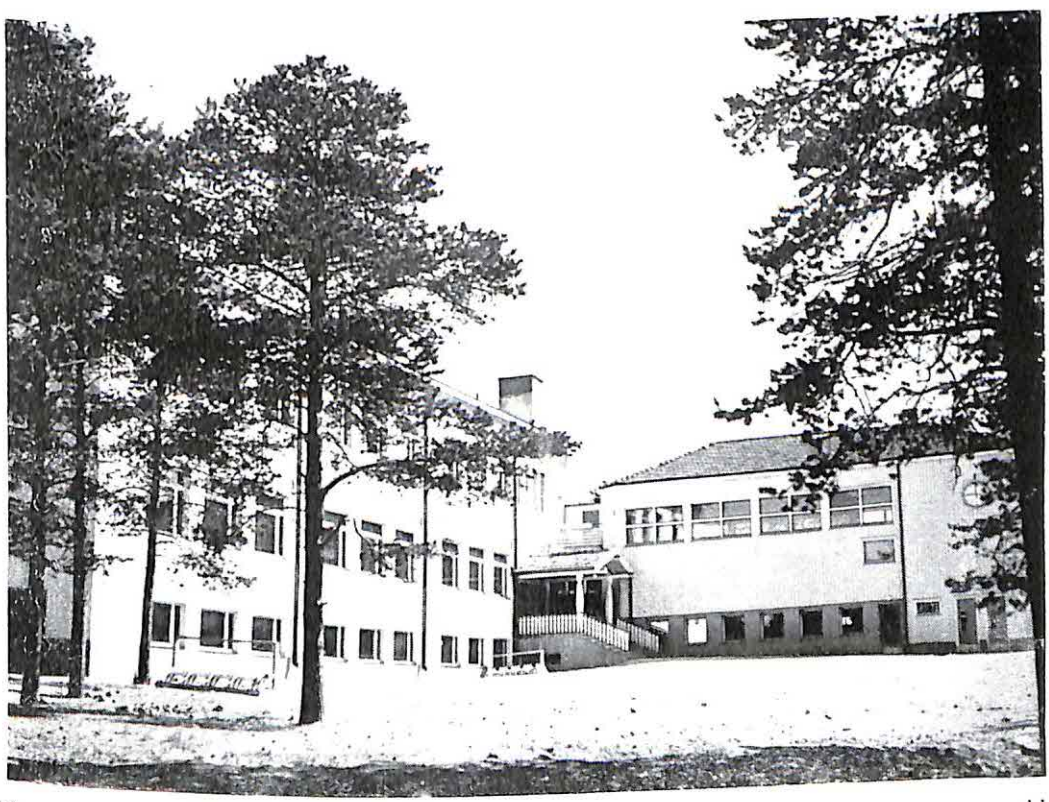

Our front cover **shows an example of a school building in Finland, where gaiety, colour and enterprising architectural ideas all have a place in the educational construction program.**

Finnish reaction to the long dark northern winter. And so it would seem, for I found that the Finns were not conservative in the use of colour, and that even sober professional men would wear the kind of blinding tie, for instance, which would be asociated in our minds with "loudness."

However, although these schools may have æsthetic drawbacks, they are lavishly equipped inside with excellent furniture and much electrical equipment. Hydro-electric power is abundant and cheap in heavily glaciated Finland, and the people are very gadget-conscious. A school broadcasting system from the Head's study is normal equipment, and the ability to speak to individual classes or the whole school, without the disruption caused by assemblies and so on, has obvious advantages. Some schools also have a house telephone system. A sceptical friend of mine says: "That's all very well, but it's to be hoped that Finnish head teachers are not chatterboxes!" Much of the equipment, such as film strip projectors, is of British manufacture.

Rovaniemi in Finnish Lapland, and only a few kilometres from the Arctic Circle, provided me with my biggest surprises. The town has been completely rebuilt since the War, and I wandered through the town one day with a visitor from Helsinki who had been born and bred here. She could not find her way about and only had the vaguest notion where her old home had stood.

I stayed with two young teachers in the Porokatu. They occupied one of the new teachers' flats which have been built on the other side of the road from the new state school (Katarajannan Kansakoulu). These flats "go with the job" and are of a very high standard. The accommodation even for a single teacher consists of a kitchenette, a dining room, a large bedroom, a very big lounge with an outside balcony, a large closet, a bathroom and separate W.C. Downstairs in the basement of the Porokatu flats there is the inevitable "sauna," showers and a laundry for general use, and individual "cold rooms" for food storage.

Miss Lappalainen, the headmistress showed me round her school. It is a bright and airy place, with wide corridors which are used as cloakrooms and washrooms. It is obvious that minute and careful planning preceded the actual construction, for I noted such things as footbaths outside the gym and the showers were glass enclosed to prevent the swamping of nearby floors. The dining room was large enough to seat all the children (250 of them) at once, as *all* children in Finland have free dinners. The furniture is excellent, the tables for example have non-burning, non-staining surfaces. Lovely curtains hang over the windows and cut flowers and flowering plants are on every table and window sill. The kitchens are large, and all-electric and labour-saving.

The classrooms are large, for the size of the classes is never allowed to rise above 35. They have extremely large double windows set in the outside wall, yet the windows on the corridor side are set high in the wall so that distraction caused by movement in the corridors is diminshed.

I was quite taken by the children's desks. A hinged block of wood inside the lid could be moved to adjust the slope of the desk top. There was even a knob at the side on which to hang handbags or football boots. Floors are usually covered by a rubberised material, which effectively eliminates the distressing scraping noise so frequently caused by children moving this type of individual desk.

There is central heating, of course, the fuel used being largely silver birch which does not often provide good commercial timber. But in spite of an almost inexhaustible supply of this, the winters are so severe that windows have got to be closed against the elements. To offset vitiation of the atmosphere in the classroom, air-conditioning plant is now installed, and this is slowly reducing the incidence of tuberculosis, which is high in Finnish Lapland.

It is horribly tempting in the rigorous winter of this region to close all exits and settle down to sleep in a comfortable fug, but wiser counsels now prevail and Lapp children, for instance, who are particularly prone to the disease, are now kept in boarding school until they are 14 when they can rejoin their parents in their nomadic life.

(continued on page 31)

C. L. Berry describes how

THE NEW EDUCATION BILL

will help the voluntary school

IT behoves all educationists to know something of any new legislation affecting the educational system. It may seem as if the Education (Miscellaneous Provisions) Bill is concerned so exclusively with administrative niceties and complexities that no one need read it who is not involved in the work of either the Ministry or the Local Education Authorities. It would be wise, however, for all teachers to peruse new measures of this kind — and all parents too — less some seemingly innocent and perhaps even incomprehensible clause might diminish his liberty.

The new Bill received its second reading in the House of Commons on December 8. Its first purpose is to remove certain anomalies regarding grants for voluntary schools. Its second is supposedly concerned with manpower. Its third is supposed to simplify and to clarify certain parts of the Education Act 1944.

The first clause amends the provisions of the principal Act relating to those children who are given the somewhat sinister definition of "displaced pupils." It gives a definition of the term which includes *pupils for whom education would have been provided in some other aided school had the children not ceased to reside in the area served by that school as the result of action taken or proposed under Housing or Town Planning Acts.* A new aided school building must be either the re-housing of a continuing school or a new school in substitution of one or more discontinued aided schools. In either case the Minister will pay half the approved building costs. The Act, however, also allows grant to be paid in respect of pupils displaced by the non-availability of of some other aided school who are to be accommodated in substantial numbers in the new building. Both the Local Education Authorities and the Churches concerned will obviously be helped by a wider, more generous and more realistic definition of "displaced pupils."

The principal Act provides that voluntary schools shall in general be either "aided" or "controlled." If aided status is not asked for and granted a voluntary school will have "controlled" status. A voluntary school could be "transferred" from an old building to a new one without becoming legally a new school. This is important for no grant is payable on the building of a new voluntary school, unless it is an aided school in substitution for one or more aided schools. Thus it happened that a new building might be provided for an old "controlled school" and the result would not be a new school! The whole cost of such building would be shared by the Ministry and the Local Education Authority. It was, however, soon found that some "controlled" schools needed enlarging rather than re-housing. For such a necessary and economical measure, however, the Act did not provide. Thus it happened that a new statute, the Education Act 1946, empowered the Minister to direct the Local Education Authority to enlarge a controlled school. The new Bill, clause 2, will enable Local Education Authorities to build new controlled schools under the same conditions as govern their power to enlarge them. It is proposed that a new controlled school may be provided in substitution for a discontinued controlled school or schools. This too will help both the Churches concerned and the Local Education Authorities. Clause 3 sensibly adds the following to the reasons which will justify the enlargement of a controlled school: ". . . or is a measure conducive to securing that there is available for the area of the Authority a sufficiency of suitable secondary schools."

Clause 4 has aroused both suspicion and opposition. The principal Act lays down the procedure to be followed where a parent

fails to fulfil his statutory duty to cause his child "to receive efficient full-time education suitable to his age, ability and aptitude, either by regular attendance at school or otherwise." In the last resort the Local Education Authority may serve on the parent "a notice requiring him . . . to satisfy the Authority that the child is receiving efficient full-time education" as defined above. If the parent fails so to satisfy the Authority then "if in the opinion of the Authority it is expedient that he should attend school" the Authority shall serve a "school attendance order" upon the parent, requiring him "to cause the child to become a registered pupil at a school named in the order." The Authority must afford the parent the "opportunity of selecting the school to be named in the order." The school so selected shall be named in the order "unless the Minister directs otherwise." There is no question, as there was in the Education Acts 1876 to 1921, of the school being willing to receive the child. The parent, moreover, may name a non-local school or an independent or otherwise non-aided school. This is quite clear from the definition of "school" in section 114. The new Bill, clause 4, would give to the Authority instead of to the parent the right to name the school in the School Attendance Order and would allow the parent a right of appeal to the Minister. It is strange that this very sensible reform should arise on the report of a Local Government Manpower Committee and be argued mainly on the ground that the proposed new procedure will save delay! It has already been criticised as encroaching on the parent's right to chose how his child shall be educated, as stated in that much violated Section 76. It is difficult, however, to feel that parents who fail in their statutory duty towards their children should continue to enjoy a privilege or even a right denied to the law-abiding parent.

Clauses 5 and 6 are concerned with dental treatment and seem designed solely to worry and harass Local Education Authorities. They have a special interest, however, in that they apply to Scotland too, so that the Bill is surprisingly and unlike the acts it would amend, a British and not an English Act.

Clause 7, according to the official Explanatory Memorandum "regularises the practice whereby, in order to make up deficiencies in their maintained school provision, Authorities take up places in direct grant and independent schools." So far, however, from giving new powers to Authorities it limits those they already have. The clause may, in fact, still further vitiate the "general principle to be observed by Minister and Local Education Authorities" as proclaimed in Section 76. It seeks to give statutory force to the limitations and restrictions which the Ministry's Manual of Guidance, Schools No. 1, could proclaim but not enforce. A Local Education Authority may wish in an appropriate case to pay less than "the whole of the fees payable in respect of the education provided" under the clause and it may also wish to do so without reference to the new conditions now proposed. Time will show whether they will be able to do so and just what is meant by the very unusual sub-clause: "The powers conferred on a Local Education Authority by sub-section (i) of this section shall be in addition to and not in derogation of the powers conferred on them by the principal Act."

Wider powers for grants

Clause 8 makes good an omission from the principal Act. Clause 9 widens the Minister's powers to aid financially "the construction of certain categories of voluntary schools, by enabling her to make grants or loans for the acquisition of existing premises for the purpose." It is certainly anomalous that the Minister may pay a building grant to the managers or governors of a voluntary school if they have constructed a new building or made or added a new wing to an old building, but not if they bought and adapted existing buildings for school purposes. The Minister does not expect this concession to cost more than £50,000 in the first year "and thereafter a negligible sum." The clause is none the less to be welcomed if it will help in those few cases where the building of a new school is quite impossible and there is the chance of buying a large house and converting it into a school. There may be cases where an enlargement of an existing school—say the provision of domestic science and other specialist rooms—can best be met by buying and converting an adjoining house. *The Times* considers that this clause will need careful watching. The clause, according to an editorial, "is obviously useful to the Churches, but there is a danger that it might encourage them to content themselves with schools which were materially below the national average." This is surely to overlook the fact that all such proposals would be submitted firstly to the Local Education Authority, whose observations would be expected, and that in any case the Minister's approval would always be necessary.

Are our Schoolchildren healthier?

Dr. R. E. Smith finds cause for optimism in the latest report on "The Health of the Schoolchild" published by the Chief Medical Officer of the Ministry of Education.

THE biennial report (1950 and 1951) of the Chief Medical Officer of the Ministry of Education is a summary of all the reports of the school medical officers in England and Wales, and deals with the health and diseases of all pupils under their care. Statistical tables are appended at the end. The majority of the report deals with interesting features throughout the country. Some diseases assume new importance, others fade almost out of the picture, some, like the poor, are always with us, and in this report of 140 pages, nine pages are devoted to verminous children of whom there were 347,544 discovered in 1951; 400,406 in 1950, and 443,016 in 1949. At last there seems to be real progress, for the previous 15 years there was little fluctuation from the average of 465,000. This feature is mentioned first because it is still a blot on our escutcheon, and secondly because more has been done by education than by treatment of individuals. "The problem is a social one, and will never be satisfactorily solved until improved living conditions, with the abolition of over-crowded accommodation are available . . . all the D.D.T. in the world does not compensate for parental indifference, and unfortunately this is a difficulty with which we are occasionally confronted." The pre-school child and the young adult, especially the adolescent girl are common reservoirs of infestation. The greatest success seems to be obtained where professional advice and guidance is readily accepted by parents, for then self-treatment of the whole family can be given in the home. A film called "Unwanted Guests" was shown to some senior girls in the city where the incidence of head infestation was usually highest. A week later when the head inspection was carried out there was a notable decline in the proportion of verminous heads.

The statistics at the end of course cannot be ignored, and I have taken out the principal causes of death as they affect the age group, and I have just put at the end syphilitic disease and diphtheria to show that the "price of freedom is eternal vigilance." If we do not remember that 35 children died of diphtheria in 1950, and 36 children of syphilitic disease, we might become complacent and neglect the preventive measures which have proved so valuable recently. One of the cruellest fates a child can suffer is to have congenital syphilis because of a fault of a parent. The great reduction in this disease, which was so prevalent at the beginning of the century, has been effected by giving every pregnant mother a blood test for syphilis at the same time as she has one to decide whether she is rhesus positive or rhesus negative, and if the mother has any signs of syphilis, treatment during the early stages of pregnancy nearly always ensures a healthy child. Whether this should be repeated at the beginning of every pregnancy is now being debated. It is important to give credit where credit is due and nobody could gainsay that the campaign against syphilis has had a most beneficial effect upon children.

Pneumonia

Pneumonia, theoretically, is a notifiable disease, and there were 178 deaths in the 5 to 14 age group, but there were only 4,393 notifications compared with 31 children dying from measles although 154,158 children were affected, and with whooping cough where eight died out of 53,793; there were

1,645 notified cases of food poisoning and 4,026 school children had dysentery. If we were to compare this with 50 years ago we should find that the number of children with intestinal infections had decreased, but that our record as regards pulmonary diseases had not improved at anything like the same rate, or to put it another way, intestinal infections have been reduced by the much more sanitary disposal of infectious matter, which really means sewage, whereas we still rely far too much on handkerchiefs for the disposal of infections from our noses and respiratory passages. Attempts have been made to overcome this difficulty, but so far there has been little success. Of all the schools I have visited I have only found one where there were separate containers for soiled handkerchiefs.

Of the other infections spread by droplets from one person to another a real attempt has been made in many places to reduce instances of tuberculosis. One could easily assume that with only 183 deaths from respiratory tuberculosis of which 138 were in the school age, that other causes were far more important as there were 726 deaths with 647 in the school age, but it is fair to point out that many of the deaths from tubercular meningitis, which will be included among the non-respiratory, really had their origin in the lungs, and that if these could really be traced to their sources it would probably be found that there were more deaths caused by respiratory infections than other causes such as infected milk. We would probably find that there were less deaths from other causes, such as infected milk than by respiratory infections if we included in this the source of infection, which are usually respiratory tuberculosis in one of the parents or a near relation.

To protect children against tuberculosis, mass radiography was the chief practical measure. In one borough 365 school staff were examined together with 3,015 school-leavers and children aged over 13½ years as well as 1,034 examined at a technical college. No case of active pulmonary disease was found among the school staff, five boys had healed primary tuberculosis, three girls had inactive primary tuberculosis, and three had active primary pulmonary tuberculosis, one had active post-primary disease and one had acute pleurisy. In one large city a contact clinic, so-called, was established and run by pædiatricians and school medical officers. The phrase "so-called" has been used because it was started for the examination of debilitated children, and although no figures are given, a number suffering from active pulmonary tuberculosis were discovered. Other medical officers are using the tuberculin jelly test. Other measures adopted are "perpetual vigilance in the public health field" of the danger that can be done by even one tuberculous cow, and the realisation that teachers may need as much protection and care as school children.

Enough has been said to show that this report should be carefully read. The raising of the school age from 14 to 15 produces the problem of the disposal of sanitary towels, and there are many good suggestions on how this can be done, and how girls can have privacy for this important duty at a time when they are naturally shy. Attempts have been made to estimate gain in weight and height in terms of three components, fat, muscle and bone, and in the last report swimming appeared rather as a Cinderella of physical exercises, now a whole chapter is devoted to it, and some medical officers are out to encourage it all they can by providing hair drying equipment for the girls, by arranging with local authorities for swimming to be available in the holidays, by providing classes for teachers of swimming and diving, but not by encouraging competitive swimming or life saving until the swimmers are expert.

Treatment for the disabled

I had in mind that one need not divide the death rate into male and female until I considered the accidents. The boy pays for his adventurous spirit compared with the girl. There are no details given of accidents, and perhaps we may see a reduction now that one has the new crossings, but it is quite obvious that children at this age, especially boys, are being killed either because they are foolish or because the motor car is being driven carelessly, and an investigation of this might throw some light on the best ways of prevention.

The whole gist of the report is to provide healthier and healthier children, but this does not mean excluding from schools all those with cerebral palsy, the epileptic, the educationally sub-normal child nor the delicate children for whom open-air schools are provided. It is gradually being realised how much can be done for these children, and many will probably ask are we really doing the best we can for these children? Fortunately there has recently been a survey of the disabled child, and this problem will be summarised next month.

DEATHS BY CAUSE AT AGES UNDER 15 DURING THE YEAR ENDED DECEMBER 31, 1950—ENGLAND AND WALES

Cause of death	Male or Female	Total under 15 years	0-4 weeks	4 weeks to 1 year	1-4 years	5-14 years
	M	16,244	7,600	4,458	2,207	1,979
	F	12,001	5,317	3,442	1,880	1,362
Pneumonia	M	2,254	512	1,321	320	101
	F	1,826	331	1,112	306	77
Congenital deformities	M	1,898	1,022	645	128	103
	F	1,593	860	511	154	68
Non-motor vehicle accidents	M	1,014	107	331	262	314
	F	585	80	219	179	107
Gastritis, enteritis and diarrhœa	M	824	70	667	77	10
	F	509	35	414	53	7
Non-pulmonary tuberculosis	M	368	—	34	208	126
	F	358	2	43	203	110
Motor vehicle accidents	M	449	—	2	156	291
	F	249	—	1	109	139
Bronchitis	M	371	18	266	63	24
	F	256	16	177	50	13
Other malignant and lymphatic neoplasms	M	230	2	15	101	112
	F	190	4	15	80	91
Whooping cough ...	M	161	1	120	36	4
	F	230	2	154	70	4
Poliomyelitis	M	180	1	27	70	82
	F	137	3	17	46	71
Leukæmia	M	155	—	5	78	72
	F	142	—	9	64	69
Other infective, etc., diseases	M	163	3	48	51	61
	F	107	4	31	37	35
Meningococcal infections	M	128	—	57	60	11
	F	97	1	45	45	6
Nephritis and nephrosis	M	110	3	14	28	65
	F	109	—	11	27	71
Measles	M	131	1	38	71	21
	F	85	—	31	44	10
Pulmonary tuberculosis	M	98	2	26	45	25
	F	85	1	18	33	33
Syphilitis	M	21	6	14	—	1
	F	15	4	8	1	2
Diphtheria	M	22	—	—	11	11
	F	13	—	—	8	5

* *Figures in these columns relate to children not at school and are given for purposes of comparison.*

readers write

School Clothes

SIR,—I have read your article on School Clothing in the December issue of *School and College Management*, and there are one or two points that I would like to make in regard to it.

Firstly, the actual total of £72 4s. 6d. which a parent states has been expended on her son of eight years old going to a preparatory school would appear to be rather more expensive than necessary.

However, I think the important point is that the child, whether he goes to school or not, must have clothes, and surely it is sensible to assume that quite a considerable number of the articles laid down are already in his possession, unless he walks about in a fig-leaf. I refer to underclothes, handkerchiefs, shoes, stockings, dressing gown, pyjamas, etc.

Secondly, although there may be an initial expenditure it is one that is spread over a certain amount of time, and to-day, when ready-made clothes are so excellently tailored with plenty of material to let out for growth, the money is well invested.

Finally, I would like to suggest that parents are very loath to think ahead. If I had a son who was going to a preparatory school, it is fair to assume that I should know which school he was going to at least a year before his entry. Under those circumstances I should take the trouble to ask the school for a Clothes List, and whatever I had to buy him during that preceding year in the way of clothing would be such as was laid down in the School Clothes List. In that way it is quite easy to see that I should not be faced with a large capital outlay in his first term.

It is awfully easy to "get at" School Clothing Lists and, as I have shown at the beginning of this letter, assume that the child has no clothes at all before he goes to school. Surely it must be a matter of gratification to us all that there are these requisites laid down by schools, or I fear that the youth of our country, if it was left to the parents, would be walking around very inadequately dressed.

K.M.C.M.

Projects, histories and secondary school selection

By F. A. V. MADDEN

I REMEMBER that once someone (who possibly ought to have known better) told me he suspected that school projects were generally rather bogus. They clearly have their uses and, though I have never personally been engaged in one, I imagine that properly handled they are a very valuable stimulus to school studies. The recent correspondence in *The Times* indicates how widely the "project" method is used and how irritating are the results of this to many learned authorities and individuals.

Dr. Atkinson started the ball rolling by protesting from the Royal Observatory, Greenwich, at the number of children who write to him for information—which, as he points out, is easily available in standard elementary textbooks. "We are starting projects at school, and mine is astrominy . . . !"

Dr. Atkinson was backed up by the Keeper of the Department of Astronomy and Geophysics, Science Museum; by the Director of a firm that makes branded textiles; and by Mr. Richard Church, who finds himself, with other well-known authors, frequently victimised by the young who seek (without pre-paid envelopes for reply) advice on literary essays and elocution. Miss Dorothy Sayers wrote with feeling of letters coming to her from American and Continental places of learning seeking elucidation of her theology because the writers have undertaken a thesis on her and her works. Mr. Guy Kendall intervened to say that two issues were being confused, projects at school and university theses being different things. Surprisingly little was written—or at any rate, printed—from the other side, though one Headmistress chided the custodians of Museums for not showing to children, "after all a large section of the community," as much patience as the harried father at week-ends. The last word came from the Director of the National Maritime Museum, Greenwich, who wrote:

"May I suggest to all your schoolboy readers that, although copying from one book is clearly 'cribbing,' copying from two is 'research'; and if one can get somebody else to do the copying, this becomes a 'project.'"

* * *

THERE have been published of late quite a number of school histories. While these are of great interest to the members of the communities whose origins and fortunes they chronicle, the amount of interest they command outside these spheres must naturally vary. Even the most parochial of them has, to my mind, some historical and sociological importance. It is always interesting to read of the origin of any well-established school, and it is usually instructive to read of the life and development of that highly individual establishment—the British Public (or Private) School.

Leighton Park, Reading, now 60 years old, has just published a history of the school, and copies are obtainable from the Bursar at 15s. 10d., post free. They have found in a late member of the staff, Mr. S. W. Brown, a lively and devoted author. The book, which is well illustrated with photographs, does not pretend to be more than a domestic chronicle, but it should be welcomed by the Society of Friends and by Leightonians with pride and gratitude.

* * *

THE National Foundation for Educational Research has just issued its second interim report on the Allocation of Primary School Leavers to Courses of Secondary Education. The authors are A. F. Watts, D. A. Pidgeon and A. Yates, and the report is published by Newnes Educational Publishing Co. at 3s. 6d.

The investigators, who carried out enquiries in London, Middlesex, and Brighton, conclude that coaching for intelligence tests in secondary school entrance examinations is both unfair and unnecessary. While they do not challenge the general fairness and accuracy of this type of examination, they find two weaknesses in the procedure: the fact that objective tests are susceptible to the effects of coaching, and the difficulty of making fine discrimination between children whose marks are close to the borderline.

Their recommendations are that judgment on the fitness of a child for a particular course of secondary education should take into account the results of at least two examinations; that additional reliable methods of assessment should be employed in borderline cases; and that allocation to a particular type of secondary school should not result—as it often does—in any sharp difference in the educational treatment given to those who just qualify for a grammar school course, and those who just fail to do so. Few, I fancy, will quarrel with this, and it is to be hoped that the report will carry its proper weight in the right quarters.

* * *

A CORRESPONDENT takes me severely to task for my reference to the Scots origin of Professor Highet, whose admirable book on "The Art of Teaching" I reviewed last month. He accuses me of gratuitously insulting the Professor. I hope that the rest of my article makes it clear that this is the last thing I should wish to do.

Although I do not know him except through his book, I have the greatest admiration for the Professor. If he feels himself insulted I can only apologise for what was intended as a playful remark, but which seems to have been differently construed. Perhaps when he learns that my own origin is Southern Ireland he may forgive me.

people *and* events

RECENT events have again called public attention to the influence so called "comics" have upon the immature—and the unwholesome influence they can be. It is of interest to hear that, at last, something more positive is being done than merely lamenting the increase of this substitute for sound reading.

A society called "The Company of New Elizabethans" has recently been founded (12 St. James's Place, London, S.W.1.) To quote from their prospectus: "The purpose of the Company of New Elizabethans is to raise the standard of all reading for children and, at the same time, to combat the influence of what is bad . . . If the influence of this bad reading matter is to be fought, if tastes are to be cultivated for what is better, and brought to maturity on what is worth while, forceful and continuous action on the part of a strong, enlightened and influential section of the community is essential."

The objects of the Company include: bringing together responsible men and women interested in the encouragement of a taste for sound literature; to bring to the attention of parents, teachers and children current good reading; to further the development of children's creative powers—The School Art Society, to hold an annual exhibition of painting, lettering, lay-out and school magazines, has already been founded under the patronage of the Company.

* * *

Field-Marshal Viscount Montgomery of Alamein was re-elected chairman of the Council of St. John's School, Leatherhead, at the recent annual meeting of the school's governors and subscribers. Mr. Alexander Abel Smith and Sir Shenton Thomas were elected joint treasurers.

Reference at the meeting was made to the fact that the school has more boys than ever before. Financial stringency, however, is making it necessary to restrict the number of places available for sons of the clergy at greatly reduced fees. Yet applications have greatly increased for these places.

* * *

It is reported that Mr. H. C. A. Gaunt, Headmaster of Malvern College, Worcestershire, since 1937, has announced that he would retire at the end of the summer term, 1953. Mr. Gaunt is the author of the book "Two Exiles," a lively and valuable account of the problems encountered in school management in war-time.

Mr. Gaunt is fifty. According to the *Daily Telegraph* he contends that fifteen years is the maximum time a man should remain headmaster of the same school.

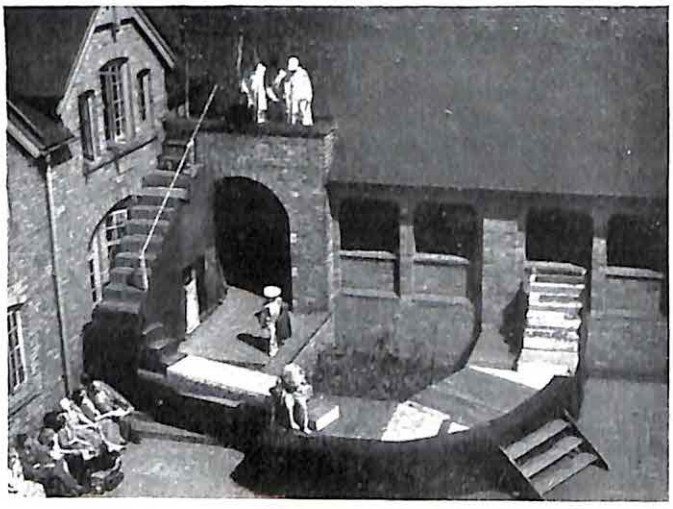

Fig. 2. The first out-of-doors forestage.

This School built a forestage

by James E. Rees and George A. Ladell

OUR permanent stage at Abbotsholme fills one end of the gymnasium. The proscenium arch is 20 ft. wide, and there is a depth of 10 ft. 6 in. from the tabs curtain to the cyclorama light pit—in other words the cyclorama is much too close to the acting area. In front of the tabs there is a permanent "Restoration" apron 4 ft. 6 in. deep, entered at each end by the usual doorway with balcony "box" over it.

Until 1950 this shallow apron had been used in Shakesperian and similar productions for street scenes, and even for interiors with furniture; but it was painfully cramped, and our entrances through one or other of two identical doors began to bore us. The chosen play for 1950 was *Hamlet,* and this gave an extra fillip to our search for more depth and variety. Firstly in considering the graveyard scene, it was necessary to enclose the trap on the front edge of the apron for the grave. Secondly we needed room for crowds outside the curtain, and finally, for the battlement scenes we wanted striking height somewhere.

We tackled this problem with the scheme illustrated in Fig. 1. Three units 6 ft. square were to stand in front of the apron, extending far enough to cover the trap, and a flight of steps (filched from a classroom), would lead down to the floor. On stage right we would take the front panel out of the box and build a high platform with a staircase coming down to the new units. The idea worked out very well in practice, except for the shortage of materials.

Softwood being impossible to obtain, the staircase had to be made of scraps and junk, while the big 6 ft. square by 3 ft. deep rostrum sections were of oak. This was not only infernally heavy—it was green. The more it shrank, the more it creaked, and hours had to be spent in silencing it before each production. Imperfect as it was, however, our demi-fore-stage was invaluable, and served us again for *Androcles and the Lion* and *Henry V,* in its original position. Its final appearance was out of doors last summer, when it was set up in our Rose Yard for a junior play (see Fig. 2).

Materials remained so scarce, that during 1951 we made no further attempt to reach our ideal of a complete fore-stage in interchangeable sections. This autumn, however,

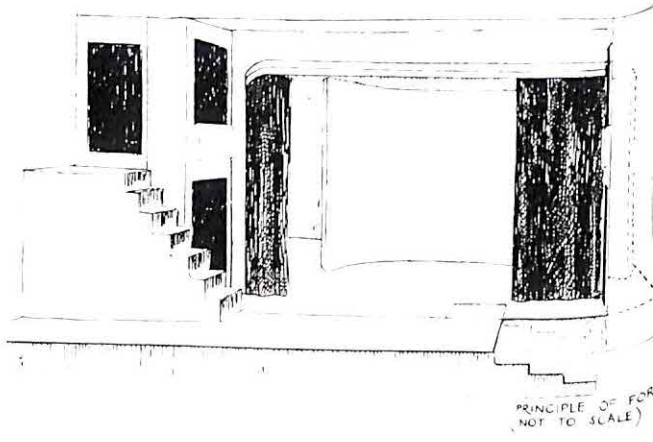

Fig. 1. The first scheme.

the main production was to be *Billy Budd*. This, with its permanent practical rigging and quarterdeck on the picture stage, demanded a complete fore-stage for the mess-deck and cabin scenes. We therefore made another attack on the materials problem, and went to a second-hand timber firm. From them we were able to get 3 in. x 2 in. joists and 8 in. x 1 in. boards at 7d. and 1s. per foot respectively. We replanked our creaking oak sections—much to the relief of the actors—and designed a set of units to fill the remaining 14 ft. x 6 ft. space across the gymnasium. These units were made in smaller sizes and heights than the first three, so as to be suitable for rostrums on the main stage, staircases, grandstands, etc. Our stage is 3 ft. high, but we have a very useful outfit of 7 in. blocks, made before the war (when tongue-and-groove could be had), and the new rostrums were wanted to work with these as well. If only the stage had been an inch short of 3 ft.! But that could not be altered, so we decided in the end to make some of our rostrums 14 in. high and some 22 in. Placed on top of each other these built up to the requisite 3 ft. When we build staircases it merely means that the actors will have to learn to look out for the mixed 7 in. and 8 in. steps.

The final arrangement of rostrums to form the complete fore-stage is shown in the exploded view (Fig. 3). The two layers of 7 in. units are made up from our original blocks. Our total "rostrumage," exclusive of steps and ramps, now is:

36 in. high—3 units, 6 ft. x 6 ft.
22 in. high—1 unit, 6 ft. x 4 ft.
22 in. high—2 units, 6 ft. x 3 ft.
22 in. high—2 units, 4 ft. x 3 ft.
14 in. high—2 units, 6 ft. x 3 ft.

and some twenty 7 in. blocks and "cheeses" of various sizes from 7 ft. x 3 ft. to 2 ft. square.

Everything was made by the boys, and the details of construction for all the rostrum units are as shown in the isometric view, Fig. 4. The 7 in. blocks which were used in construction have solid sides and are relatively much heavier; they are covered with hessian and are often used for such things as walls. Rostrums are usually bolted to each other when set up; but for a temporary stand they are quite secure without bolting.

It is no doubt apparent that with this outfit some interesting combinations are possible, including an Elizabethan apron 18 ft. wide and 12 ft. deep to stand in front of the permanent apron, and various forms of arena stage. We have a rough model of the whole at a scale of $\frac{1}{2}$ in. to a foot, which helps us to visualise the possibilities when designing sets for a new production.

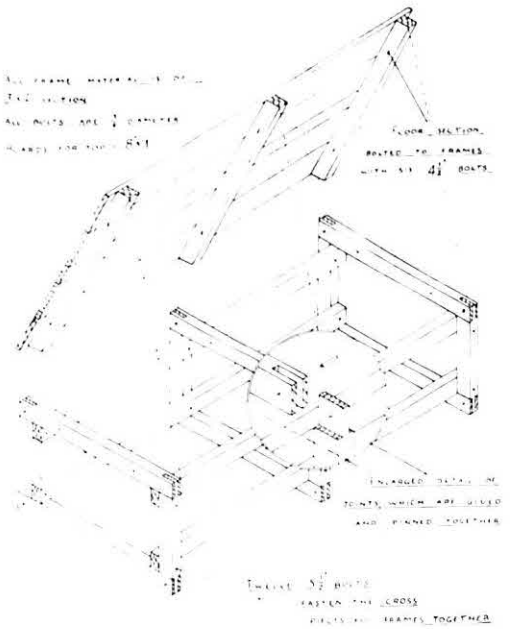

Fig. 4.

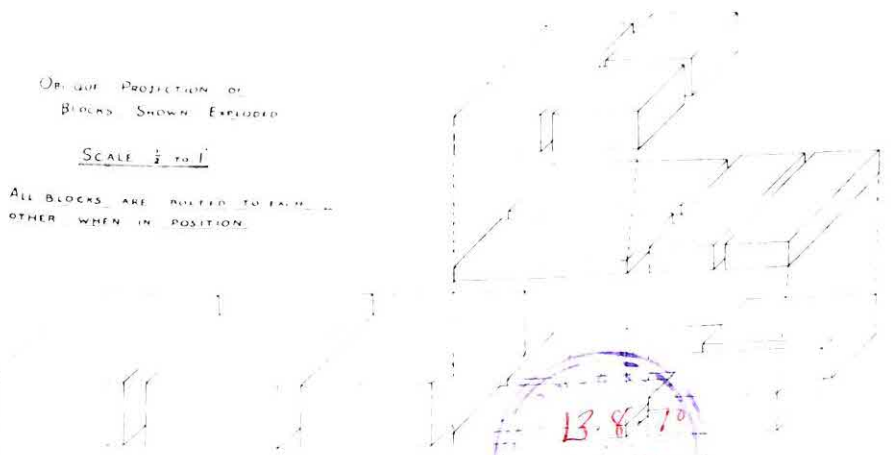

Fig. 3.

13 AUG 1953

A School Doctor discusses

THE DANGERS OF *GETTING WET*

ALL sensible people would agree that getting wet has its dangers, but when one comes to try to collect scientific evidence for this one finds that there are many difficulties. Usually, besides being exposed to wet and cold, there are other factors, such as lack of nourishment, possible wounds, or perhaps indifferent health before severe exposure. Pneumonia is a disease which has several causes. The bacteriologists tell us that it is caused by the bacillus called the pneumococcus, but now we know it is also caused by several viruses attacking the lobe, more than one lobe, or parts of the lobe of the lung. Besides the bacterial causes there are many contributing factors, such as exposure to cold, getting soaked and not drying properly, under-nutrition and possibly injury. Pneumonia is an example of an acute disease where getting wet is a contributing factor.

The other acute diseases where getting wet is a contributing factor are nephritis (inflammation of the kidney) and acute rheumatism or rheumatic fever. With acute rheumatic fever there are risks that the heart may be attacked, causing irreparable damage in the original attack and in relapses. "Getting wet" is a contributing factor to relapses as well as an acute attack.

"Getting wet" influences many chronic diseases, and of these the most important is chronic rheumatism. I am here using the word "chronic" in the medical sense of being long-lasting, and not according to the Concise Oxford Dictionary, which gives its vulgar meaning of "bad, intense or severe." Different types of chronic rheumatism are being recognised, but fibrositis, arthritis and neuritis do seem to be made worse by bad weather—so much so that patients often say they are quite a good barometer.

Perhaps we could clarify this subject better if we consider what has been aptly called "The Social Pathology of Rheumatic Fever," and here I quote freely from a paper in the Journal of the Royal Sanitary Institute, 1946, LXVI, 277, by Professor John Ryle, my old teacher. He undertook this review because of the large housing programmes contemplated, and because rheumatic fever was one of our most lethal and crippling diseases. The fact that now, six years later, surgeons are tackling the results of heart disease makes their prevention just as important now as then.

Readers may think that one has gone too far in saying rheumatic fever is one of the most lethal diseases, but there are in our community approximately 200,000 with rheumatic heart disease, and the annual death rate in England and Wales is something in the neighbourhood of 16,000. Nearly 100 per cent. of deaths from heart diseases before the age of 40 are the consequence of rheumatic carditis. Women are affected slightly more often than men. Before the war 10 per cent of deaths between five and 45 were caused by the results of rheumatic fever. There is, however, a happier note in all this, for in London it is estimated that the instances of rheumatic heart diseases among school children has fallen from 2 per cent to 0.77 per cent between 1926 and 1937. These figures, of course, agree with what we see in hospital—or rather confirm the fact that we do not see the large number of cases of bad rheumatic fever that we did 20 years ago.

Importance of season, climate and geography

Primary and subsequent attacks of rheumatic fever are especially common in this country from October to March. Certainly on the Continent of America rheumatic infection is much more manifest the further north one goes. I still have vivid recollections of going from Philadelphia, where I spent a year in 1927, and where rheumatic fever was a fairly common disease, to Montreal. There the wards were full of

people with most severe rheumatic fever, i.e., with severe joint pains, severe infections of their pericardium and pleura (which are the coverings of the heart and lung), and with enormous nodules in the skin. I did not manage to get equidistant south, which would be approximately South Carolina, but it is well known that there, rheumatic fever has none of the severity that it occasions in the more northern climates. However, people there are subject to late heart diseases, particularly mitral stenosis, which can become so crippling as to cause early death unless it is relieved successfully by surgery.

Poverty and rheumatism

There seems no doubt at all that the gross manifestations of the diseases can occur much more easily in a cold, intemperate climate than in one that has much more sun, but it is extremely difficult to be sure of one's facts. Professor Ryle remarks in his book that while he was in Madras in 1944 he was shown quite a number of cases of grave rheumatic fever in a single ward in one hospital. He mentions this because the rarity of rheumatic fever in countries like India should not be over-emphasised. The squalor and poverty in many of the working-class districts of Indian cities are only too favourable for the outbreak of rheumatic fever.

The point I am trying to make is that although one is not in possession of absolutely firm evidence, yet most people agree that the lower the social standing of patients, the greater is their risk of getting rheumatic fever. An impressive list of workers' names are given who have shown that poverty is the hand-maiden of rheumatic fever, because poverty usually means that the persons are crowded together, that they live in damp houses and have no facilities for drying children's clothes.

The effect of Temperature

All this makes one realise my original point, that there are many causes working in alliance, and that getting wet and keeping wet is probably only one of the causes, but that if some other ally is waiting to join in the fight at that time, trouble will arise. For example, Sir Sheldon Dudley, whose work to immunise the Navy against diphtheria not only won him the F.R.S. but also laid the foundation for our present successful attack in preventing diphtheria, gave an account of the spread of droplet infections in some isolated ships. He blamed damp and chill far more than overcrowding for the high incidence of sore throats and rheumatic attacks.

A case has been made out against getting wet, but one has not made out a case which twelve just men and true might agree is 100 per cent proven. One has other circumstantial evidence. The high instances of respiratory infections in the raw, foggy, cold months, and therefore it seems reasonable that we should try and imitate in winter what happens in summer. There are still people who argue about the temperature best conducive to absorption of knowledge. In America it is considered that 68 degs. is a comfortable temperature, and in England people have argued that 58 degs. is a comfortable temperature, but I always think that schoolmasters should remember that schoolboys and schoolgirls are sitting down, whereas he does get a little movement as he goes from desk to blackboard and moves about as he is talking. There is, therefore, no need to go from one extreme to the other, and 63 degs. to 65 degs. is a comfortable temperature at which to work. There is no need for thermostatic control. Warm-blooded animals, like ourselves, have an internal combustion engine, and much of our fuel is used to keep our bodies 30 degs., 40 degs. or even 60 degs. higher than the outside temperature, and our thermostat at the base of the brain sees that it is kept constantly between 87 degs. and 98.6 degs.

Precautions to take

But to return to the special point about getting wet. If a boy has got thoroughly wet; for example, if he has been skating and has fallen through the ice, it is obvious that the sooner he has got warm the better, but there is one thing which does need emphasising, and that is that as these children are liable to get pneumonia, injections of penicillin, or some other suitable antibiotic, should be given straight away. In other words, "Send for medical aid."

Those of us who have watched a rugger match between two XVs in the blinding rain, or even snow, and have stamped our feet trying to keep ourselves warm on the touch line, have usually felt sorry for the boys, but this is mis-spent sympathy, for provided that there are adequate facilities for changing (this means not only room to change but an ample supply of hot water and ample facilities for drying clothes) they will not suffer. The right temperature at which to have a bath is indefinable and will certainly raise an argument among sensible people, but it probably does not matter how hot one has it if afterwards one is brave enough to take the plunge into a cold bath.

continuing the dangers of getting wet

This may seem heroic, but it is one of the things which impressed me when I went to see the Arsenal play football recently. I remember members of the team who, after they had had their bath, jumped into a cold bath. And how fit they looked afterwards! I am not maintaining for one instant that this is necessary, but it is important that one should not have too hot a bath and then go out straight away into the cold. The upper limit should be 103 degs., which is 5 degs. above one's normal temperature. As regards drying clothes there are obviously many methods. Rugger clothes are probably best laundered, but there are obviously shirts and shorts which need not be laundered every time, and these get dried. The usual method is in a drying room where radiation from hot pipes is relied upon to dry the clothes, and these obviously have to be provided with sufficient ventilation to take the water vapour away. This is really a technical matter on which I do not pretend to be an expert.

Airing Bedding

Schools should have ample provision for getting linen dry and aired. It is impossible, of course, to torture it to dryness, but if there is a warm current of air ascending from the bottom, sheets and blankets, etc., will be kept hygienically dry. The difficulty is getting mattresses, etc., dry at the beginning of term, and schools will vary in the way they do this. Some will have a huge fire round which the mattresses circulate and are turned; others will have airing cupboards with slotted shelves so that the mattresses are really never allowed to become damp; some, to make doubly sure that beds are properly aired, will put an electric blanket in the beds for half an hour after the bed has been made up, just as many people, if they have a guest arriving and they are going to be put in a bed which has not been used for some days, will load it with hot water bottles. These commonsense precautions are all that are necessary, for we must remember that our bodies have the power of heating themselves, and that our skin is better leather than any coat, and will certainly keep out any water.

Beware of these developments

It would be wrong not to mention the chronic diseases, and I quote from the latest book of the Medical Disorders of the Locomotor System, by Ernest Fletcher, in which he says about wet and cold: "Experience gained during the course of the late war has amply confirmed this traditional belief that fibrositis can be provoked in an apparently fit subject by the direct action of cold. It is probably that, as individuals vary in their apparent sensitivity to the effects of cold, the question of 'conditioning' to low temperature is of greater importance in the production of a rheumatic response than the absolute temperature to which such a body is exposed. It may be in this direction that the clue to the 'rheumatic constitution' lies. The general lowering in the temperature of the body which results from the effect of a cold environment, and which will be increased if the skin or clothes are damp, is not the only aspect of cold which needs be considered. The effect of local cold, generally as a draught impinging upon some uncovered portion of the body, is also recognised as an apparently causative factor in some cases of fibrositis."

Although this is a guarded statement, it is more definite about wet and cold being a cause of chronic rheumatism and fibrositis than it is about other possible causes such as infectious psycho-neurotic disorders and injury. We therefore come to the conclusion again that wet and cold are allied in reducing the resistance of the body.

I think I have said enough to show that we must not go from one extreme to the other, and remember the words spoken about us by the Constable of France in Henry V:

> "*Dieu de battailes!* where have they this mettle?
> Is not their climate foggy, raw and dull,
> On whom, as in despite, the sun looks pale,
> Killing their fruit with frowns? Can sodden water,
> A drench for sur-rein'd jades, their barley-broth,
> Decoct their cold blood to such valiant heat?"

An electronic method of producing stencils direct from photographs has been introduced by Roneo, Ltd., with their electronic stencil machine. The process is similar to that of sending pictures by wireless, but this method makes finer reproductions possible. Stencils can be prepared in a few minutes from original photographs, are placed in the Roneo duplicator and duplicated in the usual way. Stencils cost 15s.

The whole process is described in a recent Pathe Pictorial news film, 8 mm. copies of which are available to schools. This method of duplicating has an obvious value to schools who produce their own magazines, and programmes for sports days, speech days, and drama productions.

Foreign Foods

News of interesting new foods and equipment seen at the recent "International Kitchen"

"*La bonne cuisine fait la bonne digestion et la bonne digestion ne fait-elle pas la joie de vivre?*"

On this theme three typical Belgian women demonstrated and displayed at the International Kitchen Exhibition, cooking which gives them such a zest to life. Theirs was one of the 16 kitchens set up by the Gas Council in the Festival Hall to give British housewives an opportunity of knowing more about foods of other lands.

No one could fail to be excited and stimulated by the delicious foods displayed and every opportunity was provided for keen visitors to question the demonstrators and find out how every dish was made.

Each of the kitchens was equipped with the most modern appliances available on our export and home markets, but national individuality was given to them by touches of colour and decorations as would be found in their own kitchens. For example the kitchen of Holland was draped with gay gingham and little frills of the same gingham edged the open shelves holding saucepans and other equipment. Fascinating bottles and carafes hung around the Spanish kitchen and dried spices and unusual vegetables and preserved meats were suspended from ceilings of some of the kitchens from the Eastern and Southern countries.

Every kitchen contained mysterious cooking utensils, serving dishes and table appointments from their country. Most exquisite Ming ware was used for serving the aromatic dishes made by Mrs. Leong from Hong Kong, chopsticks were provided for enthusiastic tasters. The colour of the kitchens created by the vast collection of curios peculiar to each country was only part of the atmosphere. The effect was completed by the carefully selected personnel staffing each exhibition.

Craft in the British kitchen was demonstrated by three of the Gas Industry's Home Service Advisers; the girls in the German kitchen were students chosen to represent the best of the Domestic Science colleges over there for the year. Denmark sent some of its best trained staff, whereas many other countries was represented by wives of Embassy staff, housewives, ordinary and professional cooks. Many were in national costume and all had a very intimate knowledge of the food and habits of their countries although some have been resident in London for considerable periods.

One of the most attractive kitchens was the Indonesian one where in addition to the women, several male chefs attended to give the visitor some of the stories of their food. Their unusual combinations of fruits and vegetables was the subject of many questions and their speedy economical manner of peeling a fresh pineapple intrigued everyone. A glimpse in the Pakistan kitchen must have prove shattering to many an idea of curry. Pakistanis demonstrated the great variety in their food and showed that a tin of mixed spices labelled curry powder was not the means to their cooking. Readily they advised keen shoppers where to purchase in this country the many different spices characteristic of their dishes. It is erroneously often thought that Indian and Pakistani food is always very hot with spices. On the contrary spices are added to vary colour and flavour but not to completely mask the natural taste of the meat, chicken or other main part of the recipes. The Pakistani large-scale method of cooking rice using meat juices to flavour but allowing only sufficient liquid to be completely absorbed during cooking was new to many observers. Apparently the washing of cooked rice method is rarely if ever used. On that continent the sort of bread used is more like the Scottish Oat Cake than our loaf. It is a dough made of whole ground flour,

how to maintain
football and hockey pitches

by W. E. Shewell-Cooper, M.B.E.

I HAVE sometimes been called in to advise on the upkeep of football and hockey pitches as well as cricket grounds, and there are real problems here, especially in the case of fields that have to be used both for summer and winter games. Both soccer and rugger take a tremendous toll of turf. The playing season is usually long, the games have to be played very often during wet conditions and even sometimes after a frost. The broad principles of course which underlie turf production, apply to sports grounds. But it is the particular wear and tear which makes things so difficult.

In the case of the football pitch, the poor groundsman is expected to have beautiful grass throughout the winter months when there is little growth, and when the winter rains cause a great deal of muddiness. I have known football pitches look so bad at the end of a season that one would wonder if they would ever recover.

Much can be done in the spring and early summer months when the grounds do not have to be used for cricket. New grass should be sown early in May. For this purpose use a good leafy perennial rye-grass —there is a pedigree strain known as S.23, which is very useful indeed, or one can buy the Kent Indigenous. Get the seedsman to mix in with this a small quantity of smooth-stalked Meadow Grass and an equal quantity of Crested Dogs-tail and you have an excellent mixture for a large football pitch which has been almost completely ruined; you want 1½ cwt. of seed.

Some schools sow the seed on to the ground before the end of the playing season and thus get it trodden in, but I don't think this is a good plan; it is better to sprinkle the seed on the surface of the ground in May and then to lightly fork it in. After all, with any sort of seed it is necessary to produce a good seed bed, and I have found that you always get better growth if you bury the seeds a little rather than laying them on the surface of the ground. After sowing, of course, the ground must be given about four months' rest and then the grass will grow strongly—it is surprising what it will put up with the following season. It would pay any school to renovate portions of their football pitch each May in the way suggested.

It helps greatly if a good fertiliser is used at the time of seed sowing or just before. One can buy from a good merchant a mixture with an analysis of 6 per cent nitrogen and 10 per cent phosphoric acid. This should be applied at the rate of 5 cwt. to the acre. For small areas, of course, it may be raked in, but when one has to deal with a large area it is better to use a peg-harrow to prepare the ground and to mix the fertiliser in with the soil. This work should always be followed with a light rolling and as a result a nice firm surface will be produced for seed sowing. Give another peg-harrowing to bury the seed and another light rolling, and the whole job has been completed.

Once the seeds are well through the ground and when they are about 3 inches high, cutting should commence. Some groundsmen like to scythe at this time of the year, but it is quite good enough to use a mower with the blade set at a high level. It is a great mistake to cut hard in the early stages of the growth of grass. Cut high then for the first few times and then lower the cutter to about 2 inches, so that you can go on cutting until say the middle of August as often as necessary, and when that date comes, the cutter bar can be lowered again so you start to get the grass ready for play.

Fortunately not all football grounds are damaged so seriously, for those that just

have maltreatment I would recommend routine spiking, so as to aerate the land, and this is particularly important in heavy soils. Sanding also helps and it is usually important in the winter to give the pitch a good rolling immediately play finishes (and many schools neglect this), for if it should freeze that night, the soil in its uneven state would set hard.

On the whole one has to take a little more trouble with a hockey pitch, because a really true firm surface is needed. Some of the best grounds consist of the Bent-Fescue turf, which produce a very lovely surface if they are properly rolled, spiked and mown. It is the regular rolling of the hockey pitches which often causes trouble, because the top soil pans and prevents the moisture from getting down below. For hockey pitches the spiking machines are invaluable and one should arrange that the spikes are about 4 inches long. I have known it necessary in the very wet parts of a hockey ground to have to plunge an ordinary digging fork into the soil at every 2 feet in order to assist the growth. This is often especially necessary around the goal mouth or at the corners, and in what one may call the striking circle.

The moment the hockey season is over the well-worn parts should be renovated and a similar mixture as advised for football should be sown at the rate of about 2 ounces to the square yard if quick results are desired. It helps too if some compound fertiliser can be given and for this purpose I have found a good fish fertiliser gives excellent results. Remember that your aim is to have the grass growing thickly before the end of August. It is so important to get the work in hand early for once September has come there is little or nothing you can do to improve matters.

It would be wrong of me not to emphasise the importance of good drainage. Sometimes when examining a football pitch which is absolutely sodden, one has discovered that the soil is quite dry only 3 inches below, it is the "puddling" of the earth by the football boots which prevents the water from seeping down any lower, and it is this bad drainage of the top 2 inches that causes more trouble than anything else. It is always worth-while spending money on a good drainage system, which in the case of pitches will probably have to be about 15 inches below soil level. There are some grand concrete porous pipes which can be used for the purpose and for good results it is necessary to space them out in rows about 18 feet apart.

In addition to the drain pipes regular spiking does a tremendous amount of good, and there are special units which can be purchased for this purpose as an attachment to the motor mower. They usually plunge their spikes into the soil to a depth of 4 inches with the result that the surface water can get away. Such spiking should be carried out twice a week if possible from the moment play starts, especially if a wet season is experienced. Most people will not believe me when I say this but it does make all the difference to the school playing field.

The Best use of Hedges — continuing

W. E. Shewell-Cooper's article held over from last month

There is usually no particular reason why a hedge should not be allowed to grow too high. If it is about six feet up, then it is fairly easy to look after and it prevents the majority of people from looking in. Those who are very fussy can allow a hedge to go up to seven feet. If it is more than 4 ft. wide it undoubtedly is robbing the soil and it will be difficult to grow plants nearby. Very often a hedge 3 ft. across kept well trimmed will be all that is necessary. It depends to a certain extent, of course, if the hedge is evergreen, or whether it is necessary to use hedging plants with spines in order to keep out stock.

A good evergreen hedge not only makes an excellent barrier but a background as well. It is useful, for instance, to have such a hedge at the back of a herbaceous border, or as a foil to roses. It is very restful to the eye, however, and so there's a lot to be said for it around the cricket field. The trouble with the evergreen is that they are much the most slow growing and in these days of everyone wanting to get the right effect in the shortest possible time, they are not very encouraging. Perhaps the quickest of the evergreens in my experience is *Thuja Pyramidalis Compacta*, which is far cheaper to plant than yew, and almost as effective. At the Horticultural Training Centre we planted it around our rose gardens and we are very pleased with the results.

There are one or two good rules to be borne in mind when planting new hedges. First, you should never plant nearer than 2 ft. from the edge of a drive or path. If, on the other hand, there's a wire fence, then the boundary hedge should be planted 3 ft. away. Bear in mind that the roots of hedging plants spread out about half the height

(continued on next page)

that they grow and so if you are going to have your hedge 6 ft. high the roots may be a nuisance 3 ft. away on either side.

I like planting in single rows. You get a far stronger hedge in the end, even though it may not be quite so thick to start with. Such hedges are much easier to keep clean in the early stages and that is an important point. Hawthorns or quicks should be planted 12 in. apart; thujas 24 in. apart; beeches 18 in. apart; hollies 20 to 24 in. apart; privets 15 in. apart; myrobalans 15 in. and yews 20 to 30 in. apart, depending on the size of plants used. Always tell your nurseryman that you want the plants to form a head and then he will know what to supply. It is usually possible to buy these at a cheaper rate than specimens needed for planting out on their own. Go to a nursery you know and make certain that the plants are really well rooted. If the specimens, when they arrive, have poor roots you are certainly going to have a poor hedge.

Book Reviews

The Principles of Nutrition for Practitioners and Students

By C. F. Brockington, M.A., M.D., D.P.H. (Cantab): London.

(William Heinemann, Medical Books, Ltd. 1952. Price 15s.)

NUTRITION is an old subject and recent advances have given it a fresh interest. Jacques Cartier, James Lind, Takaki, Eijkman, and Gowland Hopkins are men who have had as great an influence on mankind by improving our knowledge of nutrition as any five generals have had by winning battles. Civilisation cannot survive unless we produce and distribute food. 50,000 new mouths have to fed daily from 35,700 million acres on the earth. This can be done only if we use our scientific knowledge to aid nature. A good example is the increase in Canada's acreage of wheat to 27 millions in the 1930's from 2.7 in 1841 due chiefly to plant genetics and particularly to the use of Red Fife which thrives even in the short summers of the north.

There is in this book some hint how every one can improve nutrition and, perhaps, what is as important, some of the failures of the past. For example: "The cold Oslo meal has never taken on because it takes too long to eat," also that some authorities gave unsatisfactory meals, the energy values of mid-day meals ranged from 200-600 calories and the first-class protein from 1 to 10 gm. Economics are to the fore. A suggested diet consisting of 24 articles of food cost 5s. 10½d. in 1933, 7s. 4¾d. in 1937 and in 1951 the approximate cost was 13s. 9¾d. and this diet is probably not truly adequate. For schools, Dr. Brockington's table on page 78 should be amplified, and those given by the British Medical Association (Report of the Committee on Nutrition, 1950) for boys and girls aged 13 to 20 added, i.e.:—

Age	Boy	Girl
13	2,860	2,850
14	3,130	2,800
15	3,400	2,600
16	3,560	2,500
17	3,620	2,500
18	3,580	2,500
19	3,360	2,500
20	3,000	2,500

Apart from this criticism, there is little to comment on the book except perhaps that the value of vegetables as a source of iron is not stressed.

The price of adequate nutrition is constant reviews of our diets and realising that the harvest is our business as well as the farmers'. R.E.S.

Philip's Elementary Atlas

G. Goodall (Ed.)

22.5 × 28 cm. XII + 40 + 12 (index) pp. London: George Philip & Son, Ltd. 1952 *(91st edition). 4s. 9d.*

THIS Elementary Atlas, intended for use in Primary and Secondary Modern Schools, has now achieved its 91st edition—a fact which speaks for itself.

The introductory page, with its aerial photograph and section of a six-inch map of the same region, affords many interesting exercises of correlation. There are the usual statistics, maps on population, production, rainfall and vegetation with climatic graphs.

Apart from a quite comprehensive final index, the remainder of the atlas covers a series of 40 coloured plates, containing over 90 maps. Although an adequate number of political maps are given, the emphasis throughout is on the physical basis and using a clever colour grading of subtle tones for the layer colouring, without an emphasis on the intervening colour lines, the editor has succeeded in conveying a visual impression of relief. The British Isles are portrayed in six pages. Also included is a large-scale map of the N.E. United States and Basin of the St. Lawrence.

The Coronation: School Holidays

With the approval of Her Majesty the Queen, the Minister of Education suggested to Local Education Authorities and School Governors that they might mark the occasion of the Coronation by giving their schools a special holiday. It is left to Authorities and Governors to decide their own arrangements, but Local Authorities will be able to give up to three days holiday to maintained schools at Coronation time over and above the holidays normally allowed.

(continued from page 12)

Even now there is too much T.B. and I saw a large number of small patients in the famous "Children's Castle" in this town, both Lapp and Finn. It would seem that air-conditioning is a "must" in cold countries, as well as hot.

Rantavitikka school across the Kemi River was, I thought, even more beautiful than Katarajannan school in the Porokatu and it does great credit to the architect, Salokannen. The head teacher, Mr. Niilo Vesikko was doing his spell of duty out at the school camp by Lake Talastenlampi while I was in Rovaniemi. I visited him out there and found it to consist of permanent wooden buildings. Those teachers who volunteer to spend two weeks in the camp, receive food, accommodation and the equivalent of £1 a day for expenses.

Many of the schools of Finland are used during the summer months by the Finnish Youth Hostels' Association as "vandrarhem." The school in Porokatu is one of these. Classrooms are converted into dormitories and the caretaker, who lives amicably with the teachers in the flats opposite, acts as warden. Conditions for membership of the Finnish Y.H.A. are indulgent, and motorists may use the hostels. I saw quite a large number of cars parked in the playground of the school.

In the country districts like this, few schools have walls or fences round them, but the playgrounds merge gently into the nearby forest. I thought this quite delightful, and envy the Finns for their abundant "lebensraum." Reindeer constantly came out of the wilderness to examine the new buildings in Porokatu.

Since my return to England I have visited a few of our post-war schools in Birmingham, anxious to find out how they compared with those I saw in Finland. Generally, I feel happy about the results of this research, except in one thing, we do not seem to pay the same attention to acoustics as do the Finns, and indeed Scandinavians generally. Most of their new schools have perforated acoustic-board ceilings in both classroom and corridor, and the effect is astonishing. In one school abroad a schools' inspector rushed down a corridor towards me shouting at the top of his voice to demonstrate how noise could be dissipated immediately. No nerve-racking echo fell on my ears. I felt that I should like to teach in such a place.

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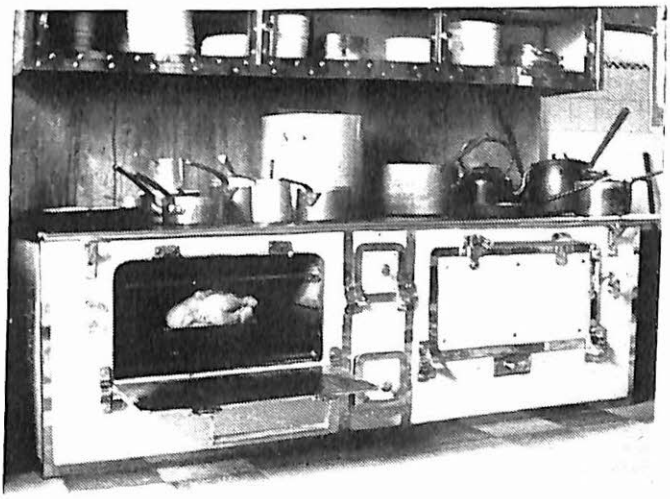

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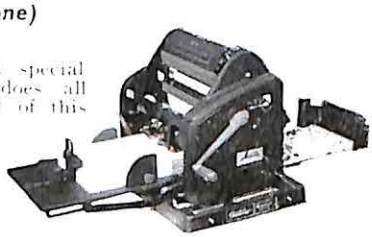

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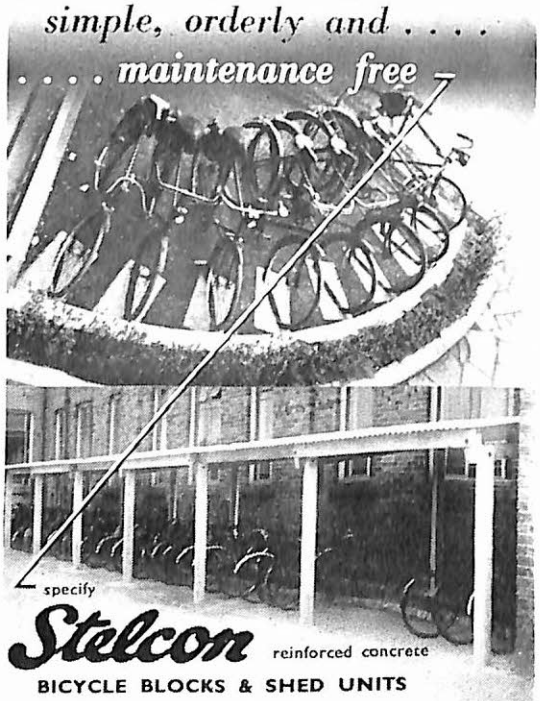

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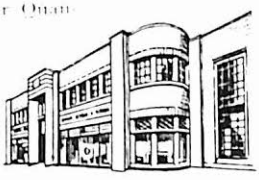

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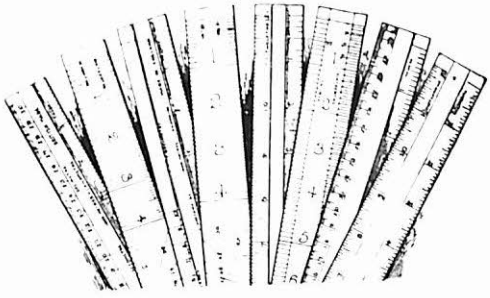

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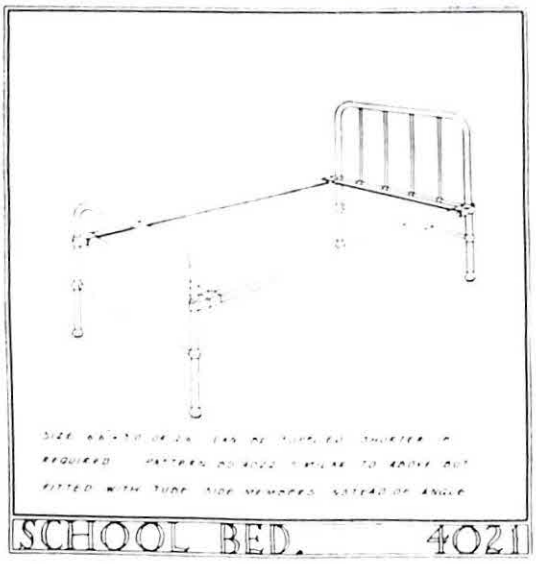

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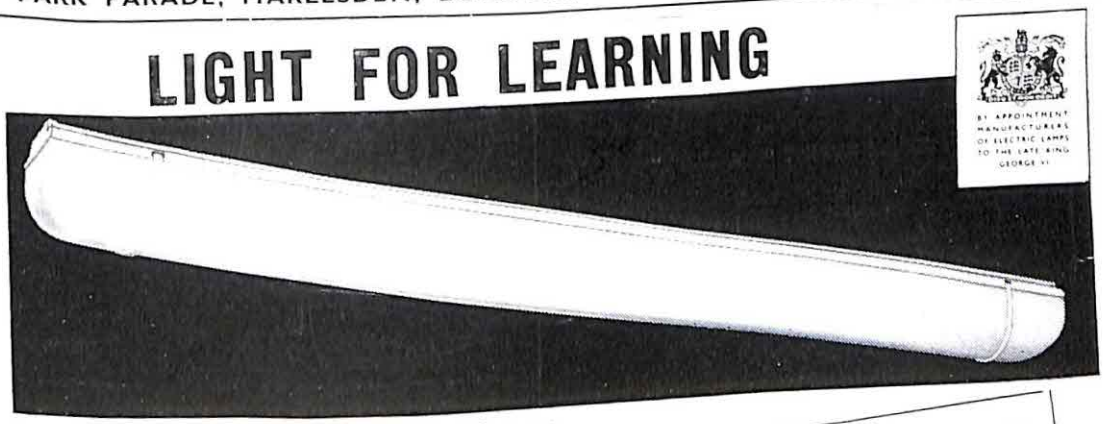

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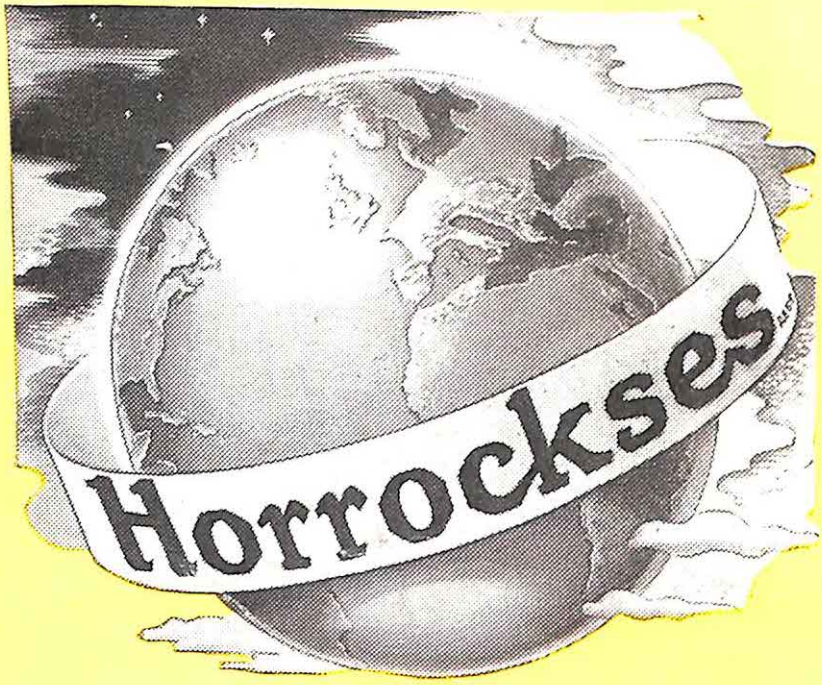

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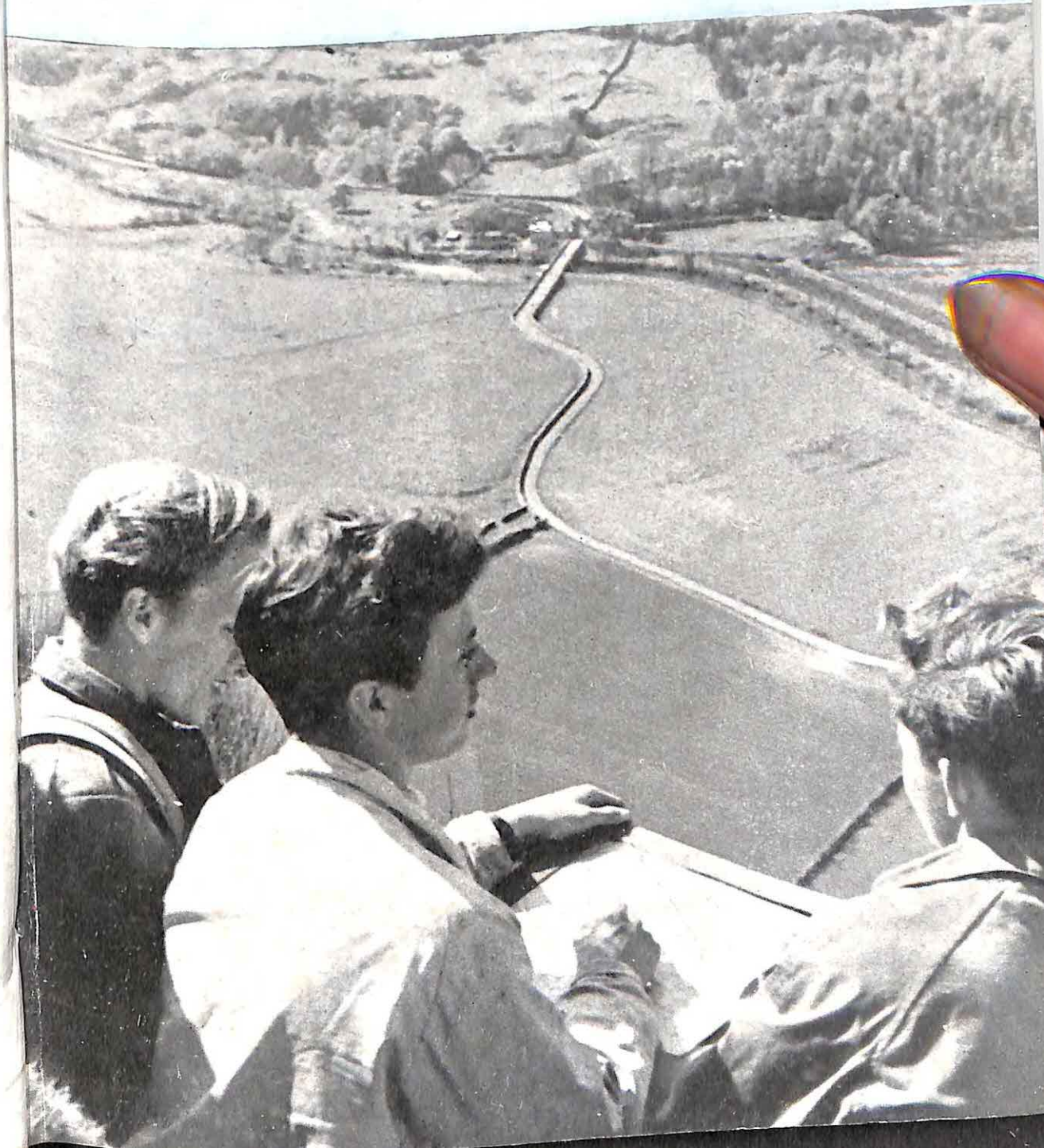

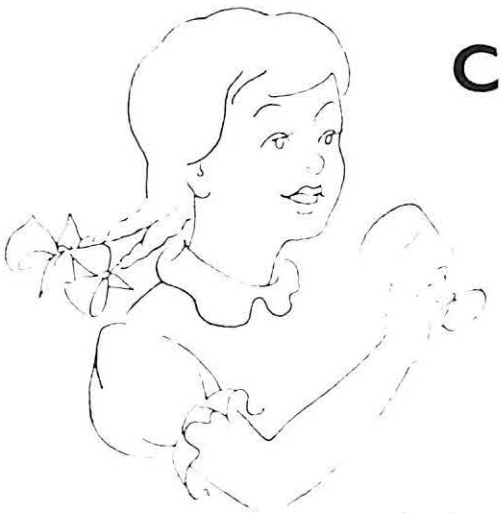

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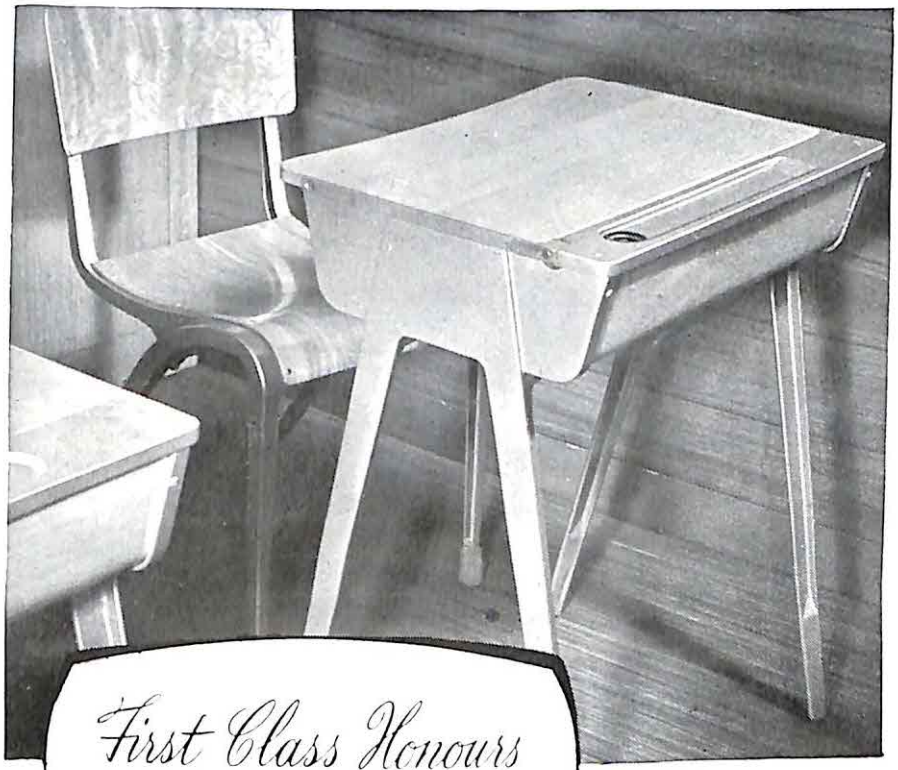

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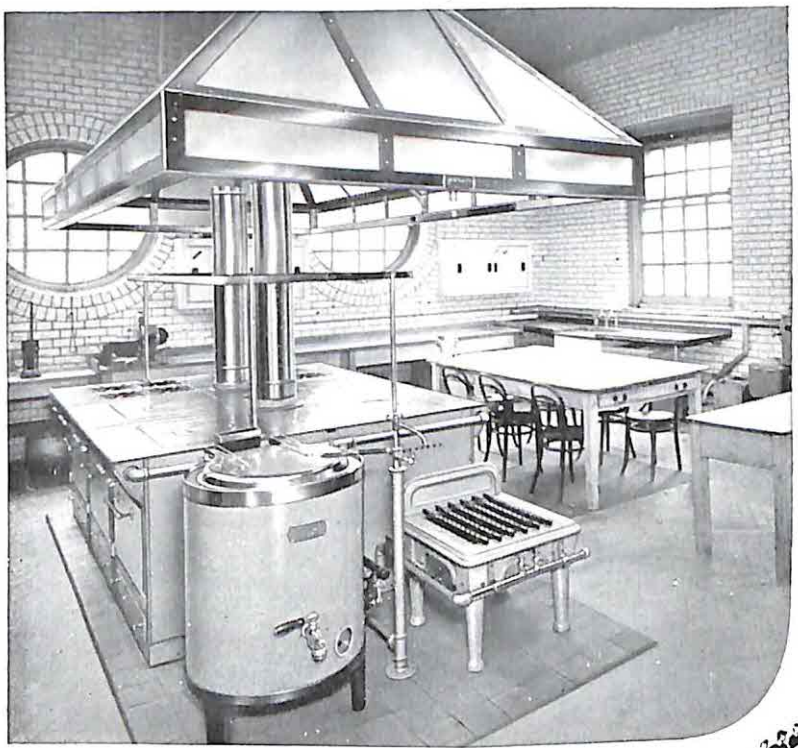

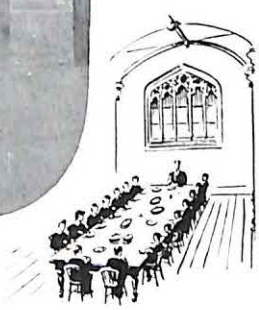

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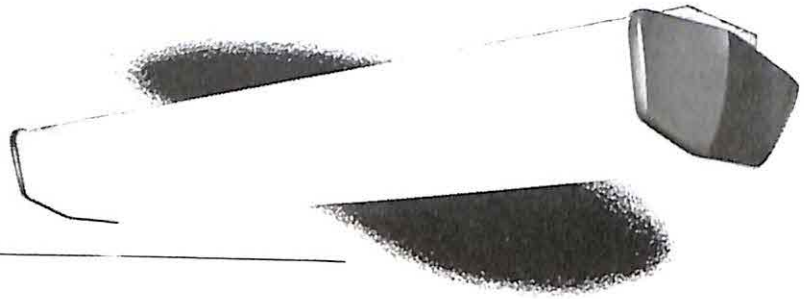

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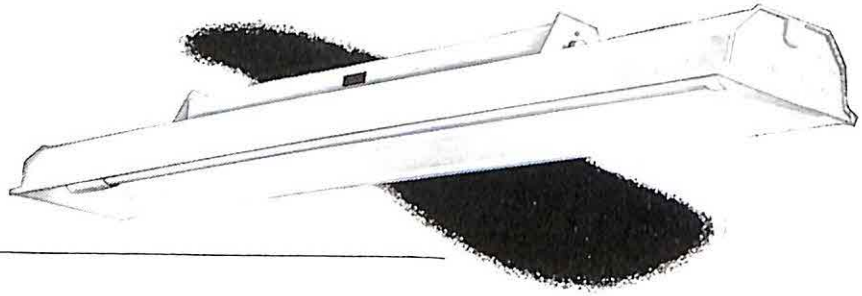

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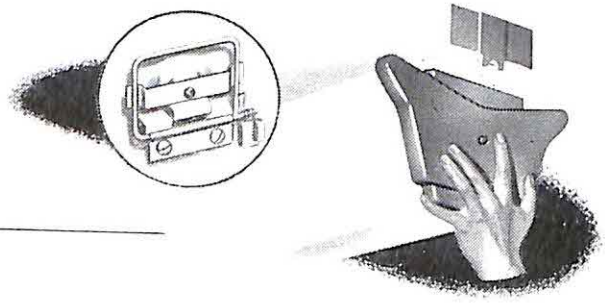

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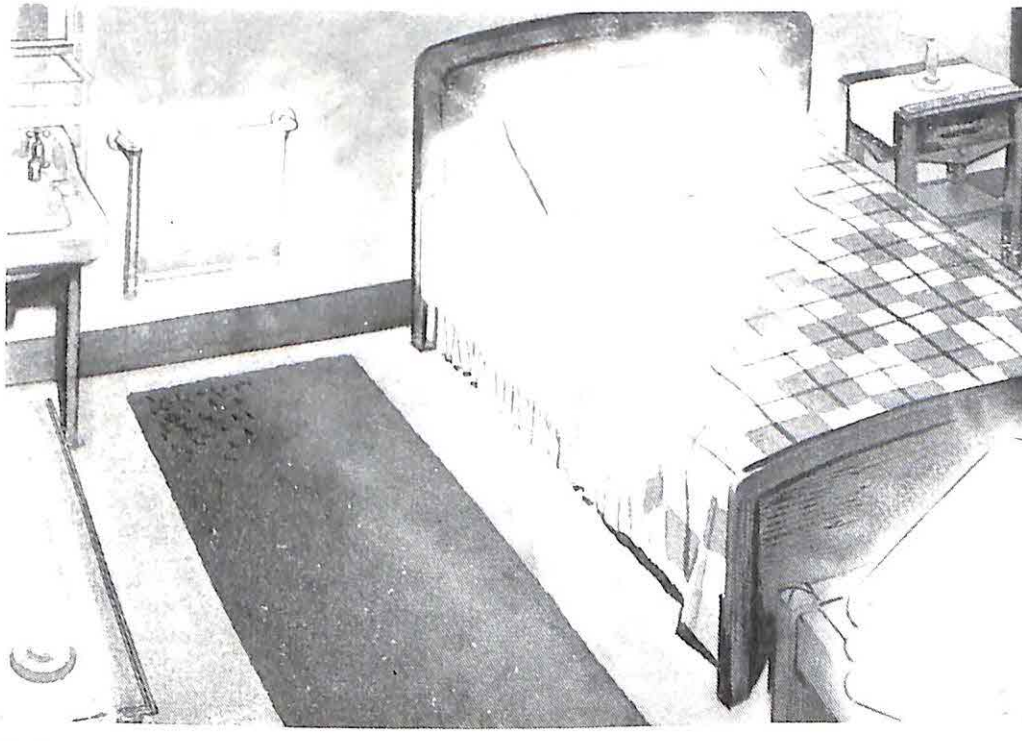

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13 No. 2 February 1953

CONTENTS

People and Events 53

Planning for the Coronation—*C. L. Berry reviews some of the useful information on planning holidays, souvenirs, etc. given in recent Ministry of Education pamphlets to local authorities* 54

Public Schools and the Future—*are they worth preserving, and if so, in what form? These are the controversial questions posed and answered by Sir William Hamilton Fyfe in his B.B.C. Third Program talk, reprinted in this issue* 56

A Doctor examines some of the prospects for employment offered to **Disabled Youth** 59

What to do with boys too young to leave school, not bright enough for University, is one of the problems answered by this **Finishing School for Fifth Formers** 60

Facing Facts about Fees—*a warning from the Bursar on some of the extra economies schools must make when fees can be raised no further* 63

Service Bureau 65

Diary in Blue Pencil *discusses education problems in the news* . . 66

Diets for the School Sanatorium—*a book with plenty of food for thought for the matron planning invalid menus, reviewed by V. H. Mottram* 68

Housekeepers' Notebook 70

Dr. R. E. Smith answers some questions on a valuable commodity—**Sleep** 72

Unusual Vegetables for Brighter Meals—*by W. E. Shewell-Cooper, M.B.E.* 74

The Editor and Management are always pleased to offer the hospitality of their columns to readers for contributions to their editorial or correspondence columns, but it must be understood that they do not necessarily hold themselves responsible for, or agree with, the opinions expressed in such contributions. Contributions should be addressed to The Editor, SCHOOL & COLLEGE MANAGEMENT, 18-20 York Buildings, Adelphi, W.C.2.

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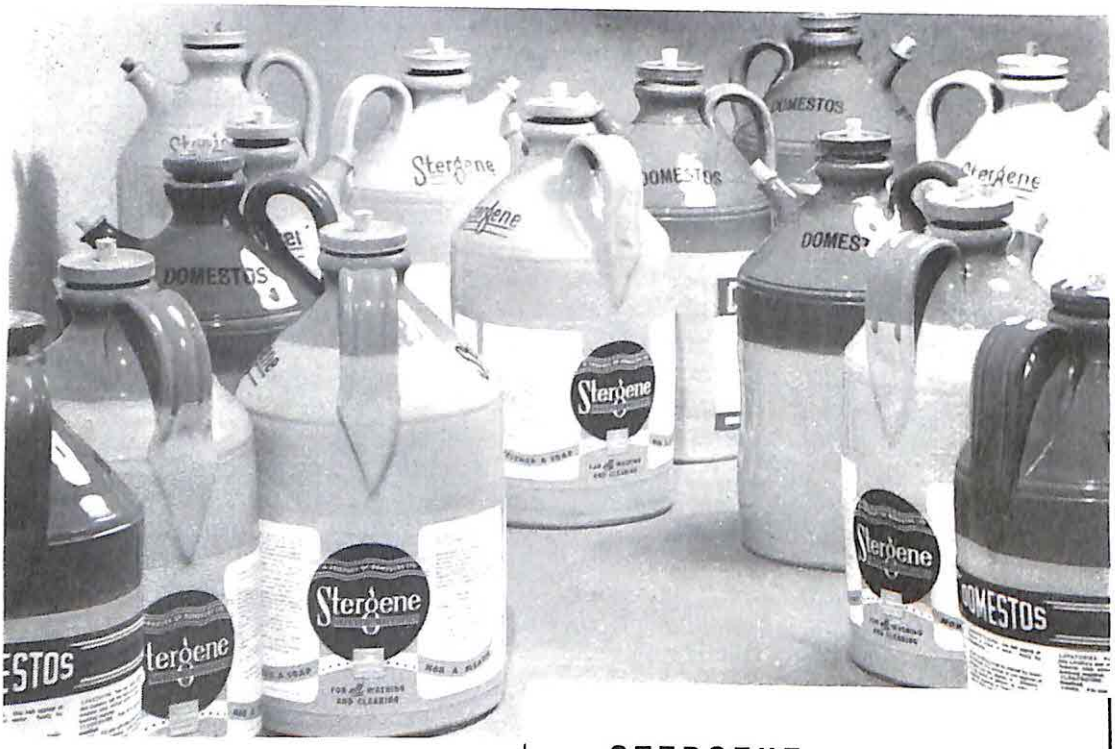
For Cleaning Up



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people *and* events

DR. RALPH MOORE, Headmaster of Harrow School since 1942, died on January 10. When he accepted the Headmastership of Harrow he was Headmaster of Bristol Grammar School and only thirty-six. Dr. Moore was one of the few headmasters of Public Schools who were not themselves Public School boys—he went to Wolverhampton Grammar School.

* * *

School reports, eighty years old, were found when repairs were being undertaken in some old school buildings at Mistley, Essex. It was obvious that they had been "posted" through a crack in the floor by some boys who were determined that their parents should not see them.

* * *

Mr. Eric Shipton—"Everest Shipton"—has accepted the post of Warden at the Outward Bound Mountain School, Eskdale, Cumberland. Mr. Shipton, who was born in 1907, was himself at Beaumont House School, Hertfordshire, and at Aston Clinton, Buckinghamshire. During the last war Mr. Shipton served in the Indian Army and was, for a time, an instructor at the Officers' Training School, Belgaum.

* * *

The League of the British Commonwealth and Empire, 124 Belgrave Road, London, S.W.1, is inviting applications from teachers in all types of schools who wish to exchange for one year with teachers in Canadian schools.

* * *

A recent report of the Derbyshire museum service—responsible for the mechanical aids in the county's schools — mentions that experiments have been carried out in certain schools upon the use of "domestic" TV sets in classrooms. One headmaster reported that with an ordinary set with a 12 in. screen it was possible for whole classes and, in one instance, 100 people to see the screen quite satisfactorily.

In a forthcoming number we intend to include a helpful and constructive article upon Television viewing in school.

* * *

The case of the secondary schoolgirl who was offered and took a part in the play *Pick-up Girl* has received considerable Press notice. Recently licences were granted to a number of children to take part in performances for one week at the Ipswich Hippodrome. Five of the girls were pupils at Northgate Grammar School, and one, for whom the Education Committee paid fees, attended the Convent High School. Both headmistresses are reported to have protested strongly.

* * *

Four schools have recently published their histories. Eltham College, founded in 1842 by a joint committee of the London and Baptist Missionary Societies as a school for the sons of missionaries, publish their history privately under the title, "The Glory of the Sons"—a title based upon the school motto.

The Friends' School, Saffron Walden—a co-educational boarding-school — have published with Heffer, of Cambridge, "Unbroken Community," at 10s. 6d. This school began in 1702 as "an experiment in compassion" in a Clerkenwell Workhouse as "a college of industry." By 1815 it had become "a family between white walls," 111 strong. In 1879 this community became the Friends' School.

Leamington College for Boys—beginning as the Leamington Municipal School—have produced their jubilee history, published by The Courier Press, Leamington.

"Shore" is an account of the development into a flourishing public school of Bishop Barry's Sydney, Australia, Church of England Grammar School—now with 800 boys. It is published by Angus and Robertson, 10s. 6d.

* * *

Mr. Byron Thomas, the American artist, whose idea of miniature museums, very suitable for the schoolboy and girl, received very favourable notice, has left for the Continent to call attention to his ideas in European schools. Mr. Thomas, however, left a specimen miniature museum at the American Embassy, 41 Grosvenor Square, London, W.1, where instructions for making others may be had on application to the United States Information Service.

* * *

Cricket fixture lists for two years have been published in booklet form by *The Times*. The demand for this booklet has been considerable. The 1953 edition has now been compiled. As well as the First Class and Minor Counties fixtures, bowling and batting averages, championship tables, etc., are included. The booklet is obtainable through all newsagents and booksellers for 1s.

PLANNING FOR

This review of the various Ministry of Education circulars issued for the guidance of local authorities on holidays, souvenirs and the educative value of the Coronation ceremony may offer much assistance to the independent school too.

SHORTLY before Christmas the Minister of Education, with Her Majesty's approval, suggested to Local Education and School Authorities that they might mark the Queen's Coronation "by granting holidays to schools in addition to Coronation Day." A month before that, the Minister had made certain suggestions and given guidance in some administrative matters on "ways in which this occasion can best be celebrated." It is a matter of interest and no little importance that these two official statements—Circular 260 of November 20, 1952, and Circular 262 of December 19, 1952—were addressed "to Local Education Authorities and Governing Bodies of all direct-grant schools, non-maintained schools and schools recognised as efficient, but not for purposes of grant." Thus for the unique occasion of the Sovereign's Coronation *all* schools are officially recognised as equally concerned. The circulars are for that reason deliberately addressed not only to Local Education Authorities and to the Governing Bodies of direct-grant and assisted schools, but also to the Governing Bodies or Proprietors of all recognised independent schools, both "public" and private. It is to be hoped that the response to these circulars will show that there can be unity of action by schools of all types throughout the country.

It is recognised that school children should "enjoy and remember" the nation-wide festivities and also "mark and digest their significance." The attention of all the schools concerned is drawn to the fact that the Coronation, the rite and the ceremonial, the vestments and the regalia, are of historical and æsthetic interest, and as such should appeal to most children. All this can be made "a lively illustration of dedication to service, a dedication religious as well as patriotic, dedication by the whole of our society as well as by the Queen herself." It is fitting that the attention of all schools should be drawn to the nature and content of the solemn and moving service which is described so inadequately as the Coronation of the Sovereign. The "Putting On of the Crown" is but one of the eighteen parts of the rite and ceremony as last performed. There are in that great service other acts, some of which are of great importance and profound significance—the Recognition, the Anointing, the Investitures, the Benediction of the Crowned Monarch, the Inthronisation, the Homage and the Communion. The service is, indeed, an Order for the Consecration of the Sovereign. Since Circular 260 was issued, the Queen herself has reminded the British nation of that fact, and asked that all who believe in God and in prayer will pray for her at that time. That is something that all schools can do.

The circular referred with an amusing show of caution to the question of souvenirs:

> "The Minister understands that it is proposed in some areas to present each school child with some permanent gift as a souvenir of the Coronation, whether out of public funds or otherwise."

Of course it is proposed, and in most, and not merely in some, areas! The practice will be general throughout Great Britain. Taken literally the above sentence recognises that "each school child" may be remembered in that way. The Education Act, 1944, defines "school" to include schools of all kinds, private as well as "public," unrecognised as well as recognised. A pupil of any such school must therefore be a "school child." It is quite true that some Local Education Authorities have already announced their intention of presenting souvenirs to children in schools of all types in their area. The Ministry has drawn atention to Circular 79/52 of the

THE CORONATION

By C. L. Berry,

Director of Education,

Wakefield

Ministry of Local Government, which describes the work of the Coronation Medal Panel and the Coronation Souvenir Committee, and indicates the arrangements made by the Ministry of Food for the supply of sweets free of personal points. These last arrangements disclose such an abundance of sweets that one wonders how the Government dares to continue sweet rationing a day longer. The circular can be bought for 3d. from H.M.S.O. The Minister of Education deprecates any considerable expenditure from public funds on Coronation gifts and festivities. She will admit expenditure for grant up to a total amount of 2s. for each pupil who shall this month be "on the register of a maintained or assisted primary or secondary school or for whose education in some other school the authority accept any financial responsibility." Grant is not paid in respect of any other school children, but this need not exclude them from provision by the Local Education Authority.

There are of course a few people in Great Britain who are anti-Monarchist. The January 2 issue of *The Socialist Outlook* published an article which quoted a member of a Scottish Labour Council as setting an example to the whole Labour movement on the question of Coronation celebrations. "I dissociate myself," said the Left-wing Councillor, "with [*sic*] everything connected with the Coronation." A Socialist should be a Republican. There may even be a few surviving Jacobites who, for very different reasons, would dissociate themselves from the forthcoming Coronation observance. The vast mass of the people, however, shares neither of these views.

It may be useful to see what some Local Education Authorities have already decided to do in the matter of souvenirs. Every one of the 72,000 school children in Leeds will receive one of three souvenirs from the City Council. They are: a glass beaker with a gilt rim and approved insignia incorporating the Crown, the Royal Cypher (E II R) and "Coronation, 2nd June, 1953," in gilt on the side of the glass; a white earthenware mug bearing the approved colour design incorporating the Queen's head, and four types of brooch or badge suitably decorated or inscribed. In addition each child may receive some sweets. There will be special Coronation teas in the schools. A programme of events has already been planned to take place in Roundhay Park. There will also be historic tableaux, games and other festivities, all to be included in a souvenir brochure and programme which will be on sale two weeks before the Coronation. At Southend-on-Sea there will be beakers for infant children and copies, for older children, of a specially produced edition of Commander King-Hall's book "The Crowning of the Queen." There will be ceremonies in all the schools. Mugs bearing the approved design and the City's Coat of Arms will be given by the Manchester City Council to all infant and junior pupils. Senior boys will be given propelling pencils and girls either pencils or replicas of the spoon which is used at the Coronation for the Anointing with Holy Oil. The County Borough of Preston decided in favour of sweets or chocolates in a souvenir tin for every child. The Council also approved the very original proposal that each school in the Borough should be allowed to choose a major piece of furniture or equipment, which would be specially inscribed and presented on the day before the Coronation.

Kent County Council decided not to include private school children among those to whom it would present souvenirs. It is significant that the Council considered it advisable to issue a statement in explanation of its decision. The County Council's contention seemed to be that it should limit its benevolence to those children for whom it would receive the 2s. capitation grant.

> "The Council is acting in this respect in its capacity as proprietor of the Local Education Authority's schools and, as such, it has no responsibility for independent or private schools. All the duties in respect of such schools which the Kent Education Committee discharges concern-

(continued on page 71)

Public Schools and the future

Sir William Hamilton Fyfe does not share the view that public schools are in danger of extinction. But in a recent talk on the Third Program on "Public Schools and the Future" he put the pointed question: "Are they worth preserving?" and his answer was "Yes, on one main condition . . . that they become more democratic." The talk is reprinted here

BEFORE I begin to discuss the public schools, I had better state my own credentials. I have been an assistant master at one public school, headmaster of another. As a don at Oxford, I had the opportunity of making friends with undergraduates who came from almost all the public schools, and as a vice-chancellor in Canada and in Scotland, I could compare these with students who came from schools that were public in the other sense of the word—provided by public authority. I am also a member of several governing bodies. (I sometimes wish they were not always called just "bodies"; it sounds to me ominous).

Danger of extinction?

Are the public schools in danger of extinction? It does not look like it. They are all full, they all have waiting lists, and never at any time has it been so difficult to get a boy into a public school; and their clients, if I may so call them, are not all old boys. Many of them come from families that have never sent boys to the public schools before. This boom has lasted for six or seven years, but round the corner lurks the inevitable slump. Already, a good many parents are paying for their sons' fees out of capital. If a man can raise about £1,000 or a bit more, he dumps it on the school of his choice in the hope that that will pay for most of his son's schooling; and he pays it down as soon as the son is born, or even earlier, because he is afraid that when the time comes he will not be able to pay the fees out of income. That serves to support the boom for the present, but it obviously cannot last very long. The number of people who can pay fees out of capital is bound to decrease. But while there are far fewer large incomes in this country, there has been an increase in the number of people whose incomes range round about £1,500 a year. By strict economy, quite a number of those manage to raise between £200 and £300 a year to pay for one or sometimes even for two children at a public school, but there are not enough of them to fill the gap. Public schools are certainly in danger.

Are they then, in the public interest, worth preserving somehow or other? It looks as if they are, because of all this competition for entry, and the bitter disappointment of people who cannot get their sons in. Or is that just snob value? There is no denying that snob value is still an element in the popularity of the public schools, but quite certainly it is not the only factor in their popularity. They are valued for the education they provide, and I am prepared to maintain, without fear of contradiction from anybody who knows the facts, that they do provide a very good education indeed, using education in the widest sense of the word. They are not all equally good, and some, perhaps many, county and grammar schools are better than some public schools. But take, say, the best half-dozen public schools, and you will have the six best schools in the country. Some people would call them the six best schools in the world.

What excellence they have, they owe to their independence. That is their great asset and their great advantage. People often talk about "the heavy hand of local administration," which is, I think, unfair, as directors of education are often wholly helpful people. But I have no doubt at all that independence does give a school the best chance, the best chance of developing into what every school ought to be, and that is a community, a genuine living community: something that is growing, growing all the time in its own manner, always building anew, on the foundation of its own peculiar tradition; something like a plant, not a machine. In an independent school of that kind, the headmaster and the staff are free

to experiment on the strength of their own experience. The headmaster is free to choose his staff, not solely for their scholastic ability, but also for their ability to become active members of a team; to develop what the textbooks in education call "a teacher-pupil relationship" of unique intimacy. It is no wonder that the public schools get the pick of the profession. And these, and other peculiar features, they owe to their independence.

But the public schools have one serious defect. They are undemocratic. I had better explain what I mean by that. People often say, especially on Labour Party platforms, that in a democracy all schools ought to be alike. But that is a damnable heresy. If a school is alive, as schools ought to be, it has a personality of its own, a personality that must make it different in some way from all other schools. That is what democracy needs for its health and progress: not a dead level of uniformity, but a rich variety of individuals, and to get that, you must have a rich variety of schools.

Someone said to me the other day that the public schools owed their peculiar brand of excellence to the fact that the boys all had a homogeneous social background. That seems to me to be their great defect. It is educationally bad because to some extent it must limit their outlook and discourage new ideas. And it is socially undesirable because it certainly creates and maintains distinctions of class. Moreover, it seems to me that this homogeneity of background ultimately depends simply on a money bar. It is true that a good many boys in the public schools are partly helped by scholarships, and a very few are maintained by local education authorities, but these, taken together, are a very small minority. For most of the boys, their parents and guardians are paying between £200 and £350 a year in fees, which means that the selection is made mainly on financial grounds, and that is what I call undemocratic. In a real democracy, every child would have, as far as possible, an equal chance of getting the education best fitted for its natural growth and development, physical, moral, and intellectual.

If the public schools are going to be preserved by state aid—and I do not see how they can be preserved otherwise—two conditions must be fulfilled: they must retain their essential independence (I know that is unpalatable to a number of people, but if they lose that, they lose also what makes them worth preserving), and there must be a divorce between entry and income. However candidates are selected, they must be selected without regard to the parents' financial means. These are not easy conditions to fulfil, but since I am myself convinced that the schools are worth preserving in the national interest, it is worth while to go on and consider how state aid could be given in such a way as to meet the claims both of democracy and of independence.

The universities get grants for capital and income from the Treasury on the recommendation of a special committee That has worked very well for about 30 years without any serious loss of independence to the universities. Why not extend that to the public schools? That would be reasonable, and it would probably work just as well with the schools as with the universities. But there is one fatal objection. It would be grossly unfair to two classes of excellent schools: the grammar schools and the county secondary schools. Inevitably, their masters would resent the granting of state funds to the public schools without the control to which they are themselves subjected. That is the sort of grievance that creates an intolerable sore, and would certainly upset our educational system.

A perilous precedent

Somebody—I think it was the headmaster of Eton—suggested that as the parents of boys in public schools do not use the schools provided by the state they should be granted some remission of income tax. That looks to me like a very perilous precedent. Surely, on that principle, I might claim remission from, say, water rate, on the ground that I prefer to import all my water at great expense from the River Jordan, or simply on the ground that I do not wash. Apart from that, in what are called the lower income brackets there are people who pay no income tax, yet they are just as likely as anybody else to have boys who are fitted to profit by a boarding school education. No, that suggestion will not solve our problem.

Then there is the famous Fleming Report. In 1942, Mr. R. A. Butler who was then President of the Board of Education, appointed a committee under Lord Fleming to consider how the opportunities provided by the public schools could be made available to all pupils capable of profiting thereby, irrespective of income. Their report, published two years later, aroused a great deal of interest, although we did have other preoccupations in 1944. And the aim of the recommendations was simply to preserve this independence under necessary safeguards and to make the schools accessible to all properly qualified pupils. The Board of Education, which has since blossomed into a Ministry, was to make sure that each public school was efficient, and that it was not conducted for profit; and schemes are proposed in their report whereby boys from the state primary schools could be entered at public schools and paid for by local education authorities. Provided that a school had a sufficient proportion of these bursars, say about 25 per cent the fees in full would be paid for each bursary by the local education authority and grants would be given to the school in respect of all its other pupils.

These recommendations were cautious and comprehensive, but they were never adopted,

continuing

Public Schools and the future

because the danger of extinction, which then appeared to be imminent and acute, has receded into the future. "The devil was sick," said the critics of the public schools, which was, I think, rather unfair. It was natural that they should go on as they had done before, so long as fee-paying pupils were in good supply: it was natural, but I am not sure that it was wise.

The only change that has taken place since the war is that under the 1944 Act, the local education authorities are sending a few boys to public schools either as boarders or as day boys. (Some of the best of the public schools, of course, are day schools.) They pay the fees for these boys, and in suitable cases they may make further grants, for outfits, for pocket money, for travel to and from home, grants to help the boys' maintenance in the holidays. The principle behind these grants is that a poor boy should not be at a galling disadvantage among boys who are very much better off.

"Guinea-Pigs" at school

That is obviously very right, but it does underline the defect of the scheme. These guinea-pigs, as a well-known dramatist has called them, do very well, I am told, at the public schools, and the public schools offer more places than the authorities can fill. But for obvious reasons they are very few indeed. It is an expensive system, too, for the ratepayer. Then, how are they to be chosen? The preference is often given to boys who come from bad or broken homes, which is reasonable enough, but not altogether satisfactory. Indeed, I heard of a mother the other day who said she was very keen indeed to get her boy into a boarding school, but she was not prepared to go into a lunatic asylum or to commit adultery. And, apart from that, so long as these boys are in a small minority, among boys who come from very different homes with a very different kind of background, it seems to me almost inevitable that they must, to some extent, suffer from an inferiority complex at school and a superiority complex in the holidays at home.

A democratic school should be a sort of "free for all"—free for all, that is to say, who can satisfy the conditions of entry, whatever they might be. It should be a true sample of the population, rich and poor alike. I do not know of any such school in this country, but there is one public school, a large boarding school, which stands high on my own list, a school which combines the characteristics of the other public schools with one unique feature: poverty is an adamant condition of entry. Now, poverty cuts diagonally across class distinction, and the result is that the "gents" and the "non-gents" are usually just about equal in numbers. At the age of entry to the school there is no disguising the difference in manner and accent of speech between, say, a bishop's nephew and the son of an unemployed burglar. By the time they leave school, these superficial differences have disappeared, and each is the richer for having known the other.

That is a school which is democratic except in one respect. Boys there come from all classes, but there are no sons of the rich. Add, then, a few sons from rich families, and you would have a truly democratic school; and that can be achieved only by the combination of two things—the selection of boys solely according to their fitness to profit by the education provided, and a strict scaling of fees to income, the poorest, of course, being admitted free. Does that seem too difficult? At the school to which I referred, that operation is regularly performed. Above a certain income, entry is refused, and the maximum is very low indeed. Below a certain figure, entry is free, and the in-between pay a fee which is exactly scaled according to their income. I am sure that could be done with equal care and justice by the finance officers of any local authority, with just this important difference: that in my ideal democratic school the means tests would not exclude the rich. They should have the same chance as everybody else.

Selection raises rather more difficult, but certainly not insoluble, problems. I think you would agree that it should not be by competitive examination, and I would say it should not be made solely on academic grounds alone. The question to be answered is, whether this child is fitted to thrive in this school, just as a plant thrives in the right soil: and that is not an impossible question to answer. The Fleming Report suggested a small selection board, consisting of the two headmasters concerned, a representative of the local education authority, and a member of the general public: someone with experience and common sense, and some humour; somebody like you—or me.

There you have my own solution. I think it is a good one: you may not agree. But unless some such solution is attempted, and attempted soon, we shall lose, I fear, from our educational system a unique feature which has always been the envy of foreign observers and I think that would be a national disaster.

In our next issue well-known educationists, including the Headmaster of a public school, will reply to some of the ideas and criticisms put forward by Sir William Hamilton Fyfe.

what are the prospects for
Disabled Youth?

The author examines some facts about lack of adequate employment for the physically handicapped revealed in a recent survey

MODERN education has as one of its aims the provision of a satisfactory and an instructive job at its end. T. Ferguson, A. N. Macphail and Margaret I. McVean in their pamphlet* "Employment Problems of Disabled Youth in Glasgow," have shown what happens to the registered disabled and those who have been to special schools for the physically handicapped. Of the population 341 per 100,000 are estimated to have crippling orthopædic disabilities but 4,300 per 100,000 children are likely to require assistance on leaving school, as 4,200 approximately suffer from defects where only improvement was considered possible, without complete restoration of function, and another 100 suffered from defects where no improvement was expected. At school we sometimes forget our less fortunate brothers, e.g., 1,850 Glasgow children attended special schools for physically handicapped children out of 174,000 at school; and there were 51 children who were so severely handicapped that they were educated at home. The heart cases illustrate well that for every one taught in a special school, there are several others in ordinary schools, i.e., of 138 new cases of organic heart disease, 16 were taught at special schools, one at home and 121 at ordinary schools, and it was estimated that 63 of the 138 would need "active help to secure suitable work." In addition a large number of children were referred to the Children's Hospitals.

The report emphasises that ignorance of how to get medical care and appliances handicaps children. "One hundred and thirteen of the young people were provided with medical aids and appliances, and 52 needed them but did not possess them." "A girl of 21, both poliomyelitic and housebound, had worn the same boot and caliper since the age of twelve and neither she nor her family knew how to get a new one; they said that their doctor could not help them." This case may perhaps be the worst but several others are quoted to show that children were suffering because of the ignorance of the adults.

A much brighter picture is given of the deaf; thanks to the voluntary work of the Glasgow Outdoor Mission for the Deaf all the boys were employed in a skilled job, and the girls in at least semi-skilled work. They "were successfully guided from the financially attractive but unskilled manual jobs which have no future." Where there is not such a body, girls especially are liable to become "housebound" and if anyone feels inclined to start an organisation for the benefit of any particular group, the report shows the choice lies between "those who suffered from tuberculosis, nervous diseases, mental defect, and diseases of the eyes who were particularly prone to unemployment." Particularly unfortunate is the lot "of young people disabled by cerebral diplegias." "The severely paralysed, no matter how intelligent or capable they may be, do not appear to stand much chance of finding work in Glasgow. As they themselves say, 'People take one look at you and that's the end of any chance of a job!'"

The epileptic is the unwanted child of industry and some in this series had tried over 20 jobs. A mild example is: "Three and a half years ago Norman W. was nearly

(continued on page 76)

* "Employment Problems of Disabled Youth in Glasgow," by T. Ferguson, A. N. MacPhail and Margaret I. McVean. Medical Research Council Memorandum No. 28. London: Her Majesty's Stationery Office; 1952. 3s. net. Pp. 66.

a finishing school

FOR FIFTH FORMERS

. . . how the "Outward Bound" Schools, by providing "toughening" courses for boys between 15½ and 19½, are helping to solve the problem of the fifth former who is too young to leave school.

WE have discussed, in previous numbers, the educational and administrative problems prescribed to a school by the boy who is nearing sixteen and, for a variety of reasons, appears to be somewhat aimless. Perhaps his parents have no wish to take him away from school just yet and launch him on a career. Usually correctly, they feel he is not quite ready. His school know that he is both unready and unsuitable for Sixth Form work and Sixth Form atmosphere.

Nearly every school taking older pupils has this problem in a greater or lesser degree. We have been criticised and said to fail with this kind of pupil because we usually offer a first-class last year or so to the pupil who is going on to a university, but little to the boy who is not. The suggestion has been made that there is a need and an opening for someone with vision and enterprise to start "finishing-schools," particularly for boys.

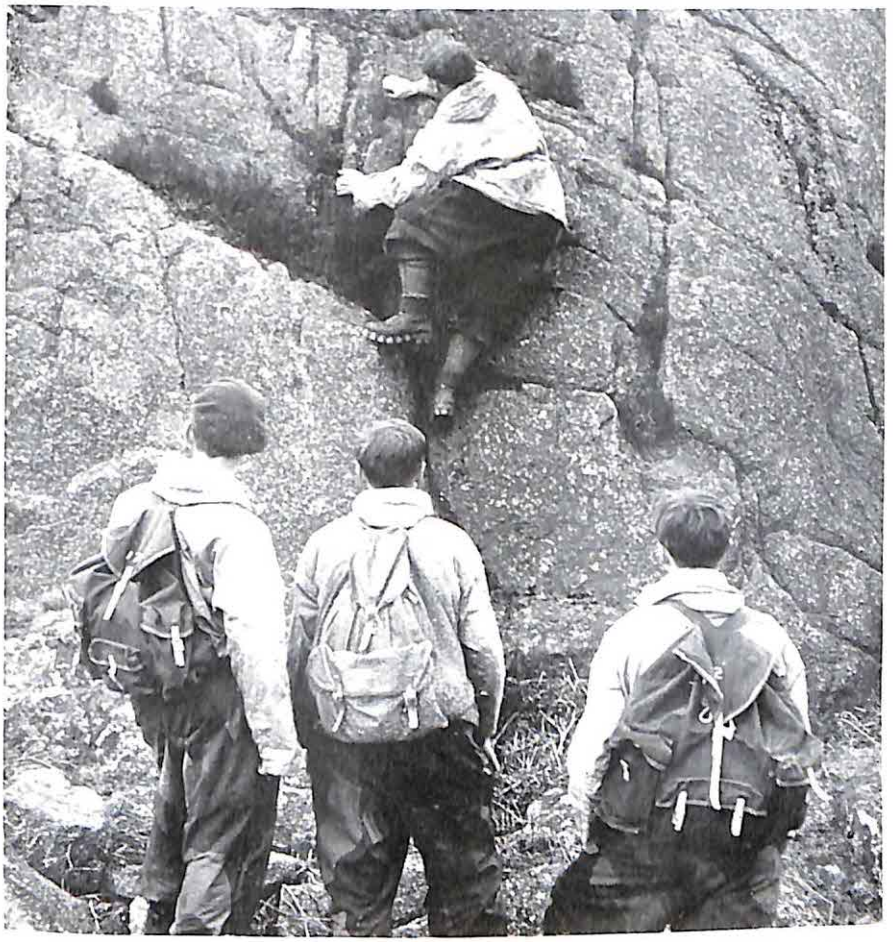
Schooling the character

In such a school the period of transition —usually quite a short one—between schoolboy and youth could be bridged. The stress could be much more upon the training of character than upon academic subjects. It need in no sense be vocational. There will probably be such a variety of intended vocations among the group that any preparation for earning a particular livelihood would be out of the question. What is needed is some preparation for life, a period of challenge and testing, during which a possibly rather aimless boy, who has not had the satisfaction of excelling in the conventional school subjects, might find out something about himself. Ideally, he would do this in an atmosphere somewhat different from that of school, which he has already known for a number of years and is probably beginning to find irksome.

Meeting the challenge

The problem is a challenge to us as educationists. It is also a challenge to management. It calls for organisation, or reorganisation, of existing plans and time-tables. In some of the bigger schools this problem of the "eternal fifth former" who doesn't get on, and shouldn't yet get out, is being met quite satisfactorily. For the smaller school a solution is not so easy to achieve. It may be that only one or two older boys are misfits—through no fault of their own—only because we have neither the resources nor the numbers to make the provision of something into which they could fit justifiable from a management point of view.

It is a problem that the smaller type of school will never be able to solve wholly and to everyone's satisfaction. That, however, is no reason for ignoring it. There are various short-term, part-solutions of which schools should be aware, if they are not already so. One in particular we should like to describe and discuss here—the schools of the Outward Bound Trust, and the short courses they offer for boys between fifteen-and-a-half and nineteen-and-a-half. At present the Trust has three schools, the Outward Bound Sea School at Aberdovey, the



Outward Bound Mountain School at Eskdale, in the Lake District, and the Moray Sea School, Moray Firth, Scotland. Their names make it clear that they can offer to the older boy opportunities and activities few of us are in a position to give.

Why "Outward Bound?" The founders believed that phrase summed up the mood, or what should be the mood, of lads between boyhood and youth. In the Trust's own words: "It needs no great flight of poetry to say that they are outward bound in the voyage of life. It is the concern of the Outward Bound Trust to give them the standards of self-respect, self-knowledge, self-confidence and selflessness, by which they can steer a course that will make their voyage profitable to the community as well as to themselves." In brief, not a "finishing-school" but a fine beginning.

The Trust, which is limited by guarantee, has Mr. B. Seebohm Rowntree, C.H., LL.D., as its President, and Mr. Kurt Hahn, the Headmaster of the Duke of Edinburgh's old school, among its Vice-Presidents. Among other distinguished men on the Council are Lord Rowallan, the Chief Scout; Lieut-General Sir Frederick Browning; Lord Malcolm Douglas-Hamilton; and Mr. G. Spencer Summers, M.P., as Chairman.

The existing schools are situated in the mountains or by the sea. They are not in any sense vocational. The schools have been sited by the sea and among the mountains because the Trust "seeks to train *through* the sea and mountains, rather than *for* them." In such places are to be found the difficulties, the dangers and the challenging occasions, hard to find anywhere else, that a boy in his late teens often seeks, rarely finds, and must find before he can find himself.

A known element to contend against is needed. A boy may discover much-needed self-confidence on the mountains or in a boat. Some of us, in our schools, can also see that growing boys are met by such or similar physical challenges. Harder to provide, for the boy soon to go out into the world, is some experience in advance of the challenge of the world—the necessity for meeting all kinds and classes of con-

Our Front Cover

Shows boys on one of the Outward Bound School Courses

temporaries, most of them with very different backgrounds.

The Outward Bound schools attract, for their courses, boys over fifteen-and-a-half from many varied fields. They offer in no sense a post-Public or Private School extension-course, though they are interested in pupils from such schools, either still at school or just left school. To youth organisations, and particularly to Industry, they offer valuable opportunities also. Banks, shipping lines, City Guilds, among other bodies are already sponsoring boys for training. Local Education Authorities have the power to make grants for boys they select as part of Further Education. There are approximately one hundred places available on each course, and consequently a group with a wide range of backgrounds and future intentions are brought together.

Mixing with others

Self-discovery and the challenge of having to meet and mix with varied contemporaries, are the opportunities Outward Bound schools have to offer to the boy in his late teens. That is something many schools, and many parents, know is badly needed by nearly all boys towards the end of their schooling. It is good to know that some boys at least are getting such advantages.

It may be of interest and value to headmasters to have some further details of the individual schools run by the Trust. Nine to eleven courses are held at each school in a year. A course usually runs for four weeks (twenty-six days), and the fee is twenty-six guineas, payable in advance. An appropriate and basic clothes-list is issued—the Mountain School must be the only school to list as "not essential but may be found useful" such an item as "One old hat with a brim." Apart from transport, there are no extras other than a charge of 10s. to cover the cost of a personal issue of special clothing. To quote from the terms of the Mountain School: "It has been found that by paying cash for clothing, it gives the boy a greater feeling of responsibility than by including this sum in the cheque."

The Warden of the Outward Bound Mountain School, Eskdale, Cumberland, after this April, will be Mr. Eric Shipton, who led the British Himalayan Expedition last year. At this school rock climbing is taught; there is also organised fell-walking and expedition work. They are officially recognised as a Mountain Rescue Unit. The boys of a course are divided into patrols, and there is strong competition, but not competition of one individual against another. The individual competes only against himself; striving to reach the school standards he constantly improves upon his own previous performances. The main activities are mountain craft, athletics (running, jumping and javelin throwing), swimming and canoeing and some forestry.

The Sea School is at Aberdovey, Merionethshire, and was started in 1941 as a war-time measure to prepare young men for the hazards of life at sea in war time; it was not until more peaceful times that the value of training *through* the sea was fully appreciated, and the composition of the school showed an increasing number of boys who would never make the sea their career. The staff is largely drawn from the Merchant Navy.

As well as athletics and a testing land exhibition, this sea course sets out to give instruction in knotting, splicing and elementary seamanship. These are a necessary prelude to small-boat training and a cruise in Cardigan Bay in the school's own ketch.

There is a "follow up" by all the Trust's schools: there are periodic "Follow Up Weeks" at the schools when old Outward Bound boys may return for a refresher, or special week-ends when old friendships may be kept green.

Not finishing but beginning

It is an unusual task for this magazine to call the attention of schools to another school. We do so, not because we believe that the Outward Bound Schools' ideas and methods are a monopoly; they, themselves, say that they are not. But the three schools exist and two more are planned. The nearest we can probably come to giving our pupils something approaching such opportunities is during the Summer holiday, when we may organise a school camp. But not every school can, or does, do this. And these schools are running throughout the year and do, in fact, stress the particular

Facing Facts about Fees

Once again bursars are facing the grim task of comparing last year's estimates with the facts in the balance sheet—and searching for economies that will narrow the gap. Fees cannot go up again, so economies must be more drastic, says The Bursar

TOUGH times are ahead of us. Fees have been raised, apparently to the limit, and still the cash-at-the-bank position fails to improve. In fact the gradually worsening situation is forcing us to face this fact, that when income has been pushed up as far as it will go, the next step is to economise. This is obvious, but not easy, for by economy in this case I mean a pruning away of fruitful branches. A bursar spends his life studying economy throughout the school, eliminating waste, etc., but to-day he must take more drastic steps to ensure survival.

Since '45 the school has made good those lost war years, expanding as never before in its history. Now, overheads are slowly beating us down again and we must start pruning to save the tree before the strong winds of adversity start to blow in earnest. Shall it be a general thinning out, cutting down a little in each department, or must a limb or two come off and so change the shape of our tree? It is this decision I want to talk over in this article, though always hoping such depressing plans may never be needed.

Our problems may not be your problems, but to talk them over with you may produce useful ideas. It is a little like a chess problem, thinking out the moves ahead before deciding which piece to deploy, move, re-move or sacrifice.

I remember between the wars many a fine school made its future secure by opening up a junior school. Certain prep. schools had worked for them in the past, but a source more certain and more closely linked was needed to maintain a steady replacement of likely material. The age range was usually seven to eleven, when the pupil would pass into the lower forms of the senior school. I mention this because there is a growing tendency for boarding children to be sent away to school later in school life—at about ten years rather than seven. Will this mean our junior schools losing money, an asset becoming a liability and to preserve the fine school itself, a closing down of our junior boarding side? I sincerely hope not for the original reason, for opening them is as important to-day as it was then.

This problem in our case is aggravated by the fact that our "junior school" is itself divided into two quite separate schools, both self-contained in every respect. There is the Junior School, six to ten, and the Middle School, ten to thirteen. This, of course, is ideal, but with the junior shrinking the two should be combined under one set of roofs. I put it this way because, ideally again, the Middle School is using four small buildings (actually the fourth is much larger than the other three). There are three boarding houses, each with its own kitchen, and then this larger building with class-rooms and accommodation for professional and domestic staff and its own

Continued from opposite page

value of the courses that take place during those times of the year that might be described as "out of season." They seem to offer an unusual opportunity for us to give our pupils, in an attractive and concentrated form, many of the activities we know to be good, and so few of us can stage or equip. They do, too, seem to offer some solution to that problem so few of us have yet solved —organising something constructive and worth while for the boy who is not quite ready for the world and who would not fit into the upper forms where, of necessity, the atmosphere is academic.

We once pleaded for a "finishing-school" for boys. The adjective is a bad one, smacking of old days and old attitudes towards education. What we meant, rather, was a "beginning school." It is encouraging to know that some exist. The address of the Association is: 40 Broadway, Westminster, London, S.W.1. Whitehall 9981.

kitchen. You can see we have clear-cut possibilities for economy before us.

There is little doubt that parents are spending capital for school fees, and as these have risen, a year or two has to be cut off boarding school, and naturally it is the early years that go. I think we shall find parents entering their children at ten to eleven years in the future.

Let me state clearly that in our opinion this original set-up was not considered extravagant but necessary for our system of education. Any alteration in this system to produce a saving necessarily cuts drastically into the framework of our tree. These are the problems that now face bursars, calling for very serious decisions.

In a short article I can only mention an idea or two and must leave a lot unsaid, but I can follow it up in greater detail subsequently. So now let us look at the lesser prunings possible, some of which may alter tradition but will not spoil the shape.

Centralisation of grocery and dry goods stores: in many instances this will already be the case, but there will be others like ourselves with self-contained houses some distance from each other who hold their own stocks. Though these will be ordered centrally by the domestic bursar it is wasteful to have stocks supporting the kitchens in the different schools or buildings. On the one hand it leads to duplication and the holding of more stock than a central store would need to hold. This all has to be paid for. At the moment our three separate food stores hold some £500 worth between them, and I know I could cut this outlay nearly in half by centralisation. For instance, many firms supply best terms for certain quantities, and so each school is tempted to buy on best terms and thus hold a year's stock when enough for a term would have been a sensible buy. A much more satisfactory check can be kept with just one store to control, and some unofficial rationing can save money and be best done centrally. Can we afford to take up our allocation of four eggs on each book at this time of the year? Can we take up the full meat ration these days? You can see there are lots of points to consider, and they can best be dealt with when the main store and the ordering and distribution is under one roof. By the way, we are able to use the tractor and trailer which distributes vegetables and milk from gardens and farms to take the week's groceries round.

When considering economies I look at the "I. & E." account, ignoring the income side but pondering over the big fellows under the head "expenditure." Any material saving can only come by attacking these, not by spending £5 less on chemicals and cheese-paring on teaching materials. In any case I consider these should be kept going as long as possible on the modest annual figure usually set aside. When total teaching materials come to such a tiny percentage of total expenditure and the whole object of the schools is to teach, then it is unfair and unwise to attempt to cut down on the tools for the job.

Salaries, wages, scholarships, food, fuels: these are the big items where a little pruning makes a big financial difference in a year. Salary decisions are not made by the bursar, and so I will mention just two points. Are we teaching more subjects than we can afford or are really considered necessary for an all-round education? Could some subjects be taught one or two days a week by visiting staff rather than permanent?

As far as wages are concerned, gone are the days when one or two extra domestics could be afforded ready to step in in case of sickness. We are down to the minimum required for efficiency on the understanding that temporary help will not be brought in, but rather extra duties will be accepted until the sick one returns. In this way we say we can continue our wage level and sickness pay as laid down under the Hetherington Scale. What other economy can be made then under this heading? Amalgamate Junior and Middle Schools and centralise the Middle School feeding. The saving in wages alone would near the one thousand mark. A powerful factor.

Scholarships are tricky things and very much the headmaster's preserve. As fees go up then scholarships are bound to increase for a time. We try to harden the heart and say no new pupil will be taken on scholarship or even part. Yet in certain circumstances it is still profitable to accept half fees, or a reduction for families. One can't do much about scholarships, and our decisions are little help to other schools; it is for each to decide this issue on their own ground and in all their special circumstances.

Food has already been touched upon, and fuel is a field where it is always possible to economise. Electricity has been re-arranged to encourage economy—cut down the number of pieces of electrical equipment and you can make an appreciable effect upon the quarter's bill. Coke-burning boilers can have gadgets fitted to their doors which increase the efficiency and reduce the quantity of fuel used. Careful planning with gas saving, say half an hour's burning a day of many jets, can save pounds a month.

Service Bureau

Inquiries to 18-20 York Buildings, Adelphi, London. W.C.2

Electric Pencils

WHERE can we obtain electric pencils for marking library books?

The Woolston Book Company, Nottingham, supply an electric stylus together with sheets of gold leaf and other materials which can be used with the pencil.

Catering

Can you suggest the name of a book containing recipes for school catering?

"Large Scale Catering," published at 8s. 6d. by the Blandford Press, Ltd., 16 West Central Street, London, W.C.1; "Handbook of Industrial and Institutional Catering," at 12s. 6d. from Baillière, Tindall and Cox, Ltd., 8 Henrietta Street, London, W.C.2; are two helpful publications.

Bed Springs

Is it possible to obtain an attachment which can be clamped under an ordinary bed-frame to support the wire mattress and prevent it sagging?

We suggest you apply to the following suppliers of attachments for beds: Institution Supplies, Ltd., 46 Park Place, Leeds, 1; No-Sag Spring Co. (Gt. Britain), Ltd., Arterial Road, Southend-on-Sea; Whitfields Bedsteads, Ltd., 12 Dane Street, London, W.C.1.

Netballs

Can you tell me where I can get netballs repaired? At 58s. 6d. each it is wasteful to throw them out because no one will put in a new panel. Shoe repairers will not take on the job.

Some manufacturers will repair their own balls, otherwise Messrs. Lillywhite Frowd, Ltd., 91 Borough High Street, London, E.C.1, will undertake these repairs.

Deodorisers

Can you give the names of reliable deodorisers for use in institutional kitchens and lavatories.

Messrs. Falk, Stadelmann and Co., Ltd., Farringdon Road, London, E.C.1, supply an electric deodorant and insecticide machine. The following firms also manufacture air purifiers: "Izal Service," Newton Chambers and Co., Ltd., Thorncliffe, Sheffield; Deosan Routine, Deosan, Ltd., Catering Hygiene Division, 345 Grays Inn Road, London, W.C.1; Messrs. Calmic, Ltd., Eagle House, Jermyn Street, London, S.W.1.

Electric Cake Mixer

I am interested in getting further details of electric cake mixers—we cater for approximately one hundred people for each meal.

The following firms will be pleased to supply information on their manufactures: Messrs. Huwood Components, Ltd., St. Peters, Newcastle upon Tyne, makers of the "Lammix" food mixer, which has a variety of attachments; Messrs. Kenwood Electrics, Ltd., 151 Oxford Street, London, W.1, makers of the "Chef," also a mixer with various attachments; The Staines Kitchen Equipment Co., Ltd., 94 Victoria Street, London, S.W.1, who supply various types and sizes of mixer.

Laundry Equipment

We wish to equip a laundry catering for about twenty people. Can you tell us where to apply for advice?

Laundry equipment is supplied by the following firms, any of which will supply details of their products on application: Bendix Home Appliances, Ltd., 46 Baker Street, London, W.1; Servis Washing Machines, 1 Craven Park, London, N.W.10; Thor Appliances, 64-66 Oxford Street, London, W.1.

Catering Exhibition

Can you please let me know when the next Catering Exhibition is to be held, and where?

The next Exhibition will be held at Olympia in January, 1954. There is an Exhibition this year, which is being run at the City Hall, Deansgate, Manchester, from February 4 to 14. Information can be obtained from Provincial Exhibitions, Ltd., at that address.

Weight/Height Machine

To cope with 400 boys twice a term, our school in South Africa requires a combined weight and height measuring machine. Can you put us in touch with a manufacturer?

Messrs. W. and T. Avery, Ltd., Clerkenwell Green, E.C.1, produce a machine of this type. Your nearest agents are the South African Scale Co., Ltd., P.O. Box 611, Port Elizabeth, and the number of the machine is 3302 ABN.

The elusive Science Master makes head-

Diary in

IF you are a wide reader of the morning papers you may have noticed a remarkable thing not long ago. It was remarkable enough that, on the same morning, the *Daily Express* and the *Daily Mail* should both carry prominent feature articles about teachers; we are not usually news. What was even more striking was their contradiction of one another—and both were right.

The *Daily Mail's* article was "Missing from School—273 Science Masters, Teachers' Pay Threatens Our Jet Age Lead, by Headmaster." It was a lament for the decline in the standards of teaching of both mathematics and science in the nation's schools because of the shortage of suitably qualified men. According to this article, in August last year, in the country as a whole, there were 273 unfilled vacancies for science teachers. "What indeed," Headmaster asks, "becomes of our future engineers, doctors and all kinds of scientists?" First-class men are unwilling to teach them because of fourth-class salaries offered.

The article in the *Daily Express*—"A Thousand Teachers and No Apple"—was concerned about the number of teachers, largely of arts subjects, there were unemployed. The figure given was 1,157. Gaps on the science side—a glut on the arts side. True, of course, as anyone concerned with the making of appointments knows.

"Headmaster," writing in the *Daily Mail*, saw the cause of the trouble in "parity of esteem," paying much the same salary to incoming teachers of all subjects. Industry has plums—not apples—to offer the young science graduate.

Independent schools are not so tied as others to scales of teachers' salaries. A thing we shall never know—how many of us long ago abolished "parity of esteem" on the staff and struck an individual bargain with each new man or woman we wished to appoint? If we have not already done so, it looks as though we may have to do so soon if we wish to maintain an even balance in the quality of the teaching on all sides of the school.

* * *

Abandonment of something approaching a "scale" of payment for school matrons and assistant-matrons seems long ago to have gone by the board. I recently had the opportunity of seeing the terms offered by a number of schools to one young lady. They were all asking for much the same thing, and it was instructive to note the wide range there was in the salaries offered. If, under the conditions prevailing to-day one may use comparative terms, it does seem that some matrons are being "over-paid" and some grossly "under-paid." If you have had one or two mysterious resignations just lately on this side of the school, which you find are hard to account for, the explanation may be found in the fact that the salaries you are paying—fixed, perhaps, some years ago—have to-day been over-bid by amounts sufficient to dislodge even old faithfuls.

* * *

"Think about your summer holiday *now!*" commanded the advertisement in my morning paper. I was only too delighted to do so because outside the snow lay thick on the tennis-court and summer, with its accompanying, satisfactory sound of tennis-ball meeting racquet, seemed hopelessly far away. These days it *is* beginning to look as though we must think about our summer holidays now, in January and February, if we want to see the inside of a hotel or boarding-house in August. Recently, no sooner is the glitter and greenery of Christmas taken down than, along with the new year, comes a great spate of advertising from hotels, holiday resorts, travel agencies, foreign railways and air-lines. I must say I like it. It coincides with those other heralds of hope and warmth and spring-to-come — the catalogues of the nurserymen and seedsmen. They, along with the travel brochures, make the finest fireside reading I know.

The truth about salary ranges . . . ball-

lines . . . holidays pre-planned . . . .

Blue Pencil

No doubt you are beginning to make plans, if not for yourself, then for the school this coming summer.

* * *

I must confess that I haven't quite lost my schoolboy enthusiasm for fountain-pens of all kinds. True, I no longer have a jacket breast-pocket almost as resplendent as Field-Marshal Montgomery's chest, the decorations being the clips of innumerable pens and propelling pencils, but there's quite a brave show on my desk. To-day, for the lover of pens, there seems to be much more opportunity for legitimately amassing an impressive collection. We now live in the era of the ball pen, and their enterprising manufacturers see to it that there are pens with ink of all the colours of the rainbow on the market. Apart from satisfying a collector's instinct in the young, with which I have some sympathy, I had regarded the ball pen as otherwise nothing but a curse, casting a blight on nearly all character in handwriting. However, I noticed that Mr. W. Blunt, Art Master at Eton, in a recent address to the Society for Education in Art, had something to say about the ball pen. Wisely and realistically, he said that it was no use trying to ban the ball pen—a conclusion most of us must be coming to, if we have not already done so. It is obviously here to stay. Not to admit that fact is to be a calligraphical Canute. In defeat on this point I found comfort in Mr. Blunt's remarks that, although the ball pen can lead to slovenly writing, if properly controlled it was all right. Mr. Blunt should know; more than anyone he has helped to foster to-day's renaissance of interest in fine handwriting. I see he insists upon a broad-nibbed pen for the learner, however. It looks as though there is here yet one more opportunity for the establishment of privileged groups within a school—"You don't, my boy, have a ball pen until you're a 'blood.'"

* * *

I have always liked outrageous excuses—even when I have not been able to accept them from boys. Did you read, recently, of the schoolboy with glasses who was out for a cross-country run? During the run he was passing through some woodland and a large owl attacked him, showing (so my paper said) particular interest in his spectacles. Anyhow, the attack was sufficiently serious for two markers to be brought across from their posts to the rescue. They beat the owl off with their markers' flags. All that was sober fact . . . which all goes to show that we must suspend judgment until we have checked facts. Who would believe the boy who, in answer to the question, "Why were you lagging back of the run this afternoon, Binks?" gave the answer, "Please, Sir, it wasn't my fault. A blinking great owl came and attacked me. Pecked my glasses, Sir. Really it did!"

* * *

Calling recently on the Headmaster of a well-known Preparatory School, out of term, I was delighted to find him nowhere about the school premises. The study, the drawing-room were empty. I was directed to a pleasant house not far away, quiet and secluded in its garden, already showing promise of spring. There I found him and his family in an atmosphere of domestic peace-and-quiet (or so it seemed, let's call it comparative peace-and-quiet). In term-time, I was interested to hear, the house is the school sanatorium. An excellent idea, I thought. Not only can the headmaster's family get away (as they should) from the atmosphere of school, but boys who are ill can have (what they should have, too) a quiet and domestic atmosphere in which to be nursed.

pens for "bloods" only . . . outrageous excuses

Diets for the School Sanatorium

When choosing the menu for the sickroom, the school matron should take into consideration the effects of certain drugs and the various ailments of the patients on the food chosen. Here is a book to help her in the task,* reviewed by V. H. Mottram

THIS book is one which should be on the shelves of any school sanatorium, and not only on the shelves, but in the hands of anyone responsible for the health of the school's pupils. It is an eminently sane and practical textbook, and though it contains much that is hardly relevant to school dietary hygiene,† it covers all the necessary ground thoroughly.

The first three chapters are given over to the normal diet. There is no nonsense in the way the modern views on nutrition are set forth. It is rightly dogmatic, for in a book of this type there is no room for arguments "about it and about." They can be left to writers on the science of nutrition. Also the authors assume some knowledge of chemistry and a scientific attitude of mind on the part of their readers. None the less, a sense of humour pokes out from time to time. The authors say, for instance, that if the mechanisms, which regulate our body temperature to 98.4° F. (more or less), were to fail "and the person was completely insulated against heat loss, he would reach boiling point in about two days!"‡

Rightly, the authors call attention to what they name "conditioned deficiencies," by which they mean a food deficiency which is caused not by any mistakes in taking the right foods, but by failure of the digestive, absorptive or metabolic processes. Thus, if you have a case of food poisoning with consequent vomiting and diarrhoea, the patient is likely to become desiccated, dehydrated and dried up. His tissues won't function unless they can get water, and people actually may die from this dehydration. (Babies are particularly vulnerable.) It may become necessary to give fluid by the veins in such a case. Anyhow, people with food poisoning must have plenty of water to drink (taken in sips and very slowly in case an irritable stomach rejects a copious draught).

A good example of a "conditioned deficiency" is that actually caused by these modern drugs (M. & B., penicillin, chloromycetin). Most of us obtain a deal of our B vitamins from the microbes which inhabit the large intestine. Antibiotic drugs, such as M. & B., throw these microbes out of gear, and so we get too little of these vitamins, and show signs of B avitaminosis (a sore tongue, strawberry red or magenta in colouration, and cracked corners to the mouth).§ Clearly this is a thing anyone nursing the sick should be on the watch for. Whenever any of these drugs is given the diet should be rich in the B vitamins.

* "Modern Dietary Treatment," by Margery Abrahams, M.A., M.Sc., and Elsie M. Widdowson, D.Sc., Ph.D. (3rd Ed. Baillière, Tindall & Cox. 15/-.)

† For instance, Chapter 3, a short chapter, is given to a consideration of the normal diet in Pregnancy, Lactation and Old Age, conditions hardly likely to come under the matron in charge of the school "san." None the less, the wives of married masters might benefit from the book, and in national emergencies schools have to employ "dug-out" masters! (I was one myself.)

‡ I wish that they had omitted the exclamation mark. The serious reader might then think that this explains old X.

§ I speak rather feelingly on this, for a recent course of chloromycetin (chloramphenicol) was followed by a sunset coloured tongue and angular stomatitis.

That means pushing in yeast extracts or a particular proprietary food made from wheat-germ. The former are difficult because they contain so much salt, and salt irritates a sore tongue. However, they can be well diluted. A good feature of these chapters on the normal diet are tables of the main sources of various food essentials. If only caterers and others would make use of these tables, what a lot of dietetic absurdities would be avoided, both in the home, the boarding school and the school sanatorium!

I have carefully considered these three chapters on the normal diet, and have found only two lacunæ. On p. 22 the authors say that it is unnecessary to consider potassium in normal diet. That is almost certainly true; but it is necessary to consider it in some illnesses, especially after operation on the stomach and small intestine.

The other lacunæ is that no mention is made of the dramatic results in cœliac disease of cutting out of the diet every source of gluten, the mixed proteins found in wheat flour. Why a cœliac child cannot absorb fat from his intestine when he is eating bread made from wheat or rye flour has us all guessing. (Some of us whisper "allergy," and the others say "Oh, yeah?")

Dietetic treatment of diseases

In neither of these omissions are our authors in any way to blame. The preface is dated 1951, which means that these two subjects came too late to light to be included. It is impossible to be right up to date in view of the difficulties and delays that are to-day inevitable in the publishing of books. (And who would dare to say that we are in sight of the end of the science of nutrition when two such interesting novelties have recently been discovered?)

The next section of the book, Chapters IV to XI, has to do with the theory behind the various dietetic treatments of disease, the practical details of which fill the final and much the largest portion of the book.

Invalid antics

I wish that I could quote one-half of the good and wise remarks in this second section of the book. The horse taken to water who will not drink isn't in it with the "san." patient. "A young Irish stable-boy of . . . who was admitted to hospital weighing only five stone, persistently vomited all the invalid diets which were offered to him, but he was willing to eat, and could keep down as much fried bacon and eggs as he could get." This example is used to illustrate "Each person is a law unto himself as regards his food, and no rules can be laid down which will apply to all cases." They mention the fact (observed by one of them) that men who had been under-nourished in Germany for eighteen months, found no difficulty at all in eating a diet composed of ordinary foodstuffs providing 6,000 calories a day. (You and I take from 2,000 to 3,000 per day.) Diets for slimming —they say too much emphasis cannot be laid on the harm done through the slimming craze—should be used only on doctors' orders and with doctors' supervision. Their words on diet in the "san." when feeding youngsters, are extremely valuable. And so, too, are their recipes (pp. 212 to 267)—in fact these pages make a good cookery book for anyone, sick or well.

I ought to say a word about the two authors and their right to hold forth on the subject of nutrition. Miss Abrahams (after obtaining a degree at Oxford, I believe in History) came to King's College of Household and Social Science to study Institutional Administration. As a keen Zionist she went next to work in Palestine and became convinced there that nutrition was her calling in life. As in those days there was no specific training in dietetics to be had in Great Britain, I advised her to go to the United States, which she did, and obtained her M.Sc. in Columbia University, New York. Coming back to England, she was at once snapped up for the newly instituted diet kitchen in St. Bartholomew's Hospital. She became, in fact, the first practising dietitian in this country. Followed many years of work in that capacity, and the various editions of this book.

Children's food intake

Miss Widdowson, after obtaining her B.Sc. in the University of London, and doing some research work for Cadbury's, took the newly instituted postgraduate course in dietetics at King's, and then went as colleague to Dr. (now Professor) R. A. McCance, first at King's College Hospital and, later, in the University of Cambridge. "McCance and Widdowson" are names to conjure with among nutritionists. Perhaps her best work is that of collecting and analysing and putting into understandable order and words the food intakes of over 1,000 children, mainly of the middle classes. The authors are, in a way, complementary—Miss Widdowson having more theory (though eminently practical) and Miss Abrahams having had more practice in feeding the sick. They are to be congratulated on this third edition of their very valuable book.

HOUSEKEEPERS' NOTEBOOK

by Elizabeth Midgley

THE New Year sales of 1953 are offering exceptional bargains in all types of household goods. Probably because Coronation Year is challenging British enterprise in every way, stores and shops are intent on preparing the way for new goods by clearance of old stocks at greatly reduced prices. For institutions, textile goods, furnishing materials, household linen, carpets and china, kitchen equipment —are the goods to seek, and there is a remarkable variety of choice. The threat of a trade "slump" in any branch of industry has serious repercussions on the general attitude towards spending, and in some areas money for some time has been cautiously rather than generously spent, so that shops have accumulated more than usually heavy stocks of goods.

There are, however, heartening signs that the excellence and quality of British workmanship is recognised, and practical acknowledgement of this is being shown by the records of overseas buying. None but the best type of goods can face and conquer competition abroad, and every warehouse and store is selling off old stock so that the latest types of materials and designs may find a place on our home market as well as abroad.

Amongst the old stocks, slightly imperfect goods are often found (and, indeed, are advertised by firms of national repute). The imperfection may be caused in weaving or printing, or in such things as a faulty selvedge. A "rejected" piece of material may have a fault so slight that the expert alone could detect it. In other cases it might show a series of slight misprints or weakness in weaving affecting a piece of, maybe, dozens of yards. All such faults are labelled by a tag or cord, generally threaded through the selvedge adjoining the fault. These goods can be of excellent value to an institution where materials are purchased in wholesale quantities. Coloured towels may be woven in a faulty colour pattern which detracts nothing from the utility value, but must be sold as "faulty." Poor selvedges are easily strengthened by a hem, although to the initiated it constitutes a grievous imperfection.

Patterned materials have always to be considered with reference to the ultimate purpose for which they are intended, as faults in printing might be difficult to circumvent in some circumstances. A streak of blurred colour across a width of pattern might ruin a material's value for curtains, but might not be disastrous for chair covers, or for gathered or pleated flouncings. Obviously, in such cases much can be achieved by planning, and plain and printed materials can be used together to disguise faults and shortages. In any case buying is skilled work. Widths of materials can make all the difference between good and bad bargains; colour and design are important too, and suitability of material to the purpose required is, perhaps, the most important feature of all.

Towels are sometimes sold in pairs with the fringe dividing the two uncut. For hard wear, hemmed towels have a longer life, but the fringe can be restricted by a line of machining across the edge of the towel above the fringe. Washroom towels, in schools, are often badly taped for hanging. A double loop puts all the strain on one small area—a tape across the width of a towel distributes the strain. Bath towels need two tapes if towel rails are not available.

Carpets, some manufacturers think, will increase in price. Shop-soiled rugs or carpets, or those faded in window displays,

are often sold quite cheaply, and in some cases are of very good quality and design. Travellers' samples of carpets also are excellent for bedside rugs if one can obtain them. During the war years, many were available because there was little hope of their type being repeated, and 12s. 0d.-14s. 0d. was a usual price for a thick-piled sample. Each sample comes in a different shade, but one might purchase half a dozen shades of each colour, making a quite pleasant variety.

Well-designed, cheap china

China is still expensive, and most of the coloured and decorated china is prohibitive in price for institutional use. It is possible, however, to find some china in good, clear colours, moderately priced, and even a few pieces are welcome on an otherwise plainly furnished table. Coloured glass-ware, too, is obtainable in ovenware containers, and adds sparkle and colour to a meal.

"Seconds" in china have to be checked. Saucers and plates which are not quite symmetrical are not easy to "pile" safely. The moulded patterns, too, so often seen on jugs and other crockery, need special attention in the sink. Frequently this form of decoration is used around the lip of a jug or the handle. A small, stiff brush, kept in the pantry, is excellent for removing congealed sauce or gravy from patterned or plain surfaces, and can be used with advantage also to maintain immaculate cleanliness around cup handles. Dish-washing machines give excellent service, but every pantry is not so supplied.

Stock pots and pans

Deviating from china to another type of kitchen utensil, not every kitchen despises the old-fashioned type of ovenware, and although "tin" ware was difficult to find not so very long ago, in some districts there is now a good supply of heavy- or light-weight tinware at very moderate prices. Many of the stores which glitter with stainless steel and shining dishes and pans of every shape and size, can still produce the sturdy old roasting tins in which once our joints of meat sizzled and roasted to succulent rightness. Quite a few cooks still use them, also the old heavy type of iron stock-pots and frying pans. Many a little old-fashioned shop can produce them, and in second-hand shops one can be sure of seeing the old brown pottery crocks in which the Victorian housewives simmered their chutneys and pickles or cooked their cowheel and knuckles of pork and so on, later to be made into meat moulds and brawn!

The sales this year may well be extended until old stocks can give place to an array of goods which will make our stores blossom with colour and beauty of fabric and design. The craftsman will be happy, we hope, and busy creating beauty. In the meantime, a search for useful and decorative equipment can be a rewarding adventure for shoppers.

Planning Coronation Celebrations

(*continued from page* 55)

ing maintained schools, are discharged by the individual governing bodies or proprietors. It is considered that it would be inconsistent with normal practice in matters of education for the Council to attempt to deal with those children who are not within the orbit of its authority, and arrangements are being made to proceed on the basis of the Ministry's Circular."

On the other hand a Socialist controlled City Council decided to present souvenirs to all children at all schools in its area. It refused to exclude children at private schools on the ground that they should not be penalised either for their parents' choice of school or for any statutory provisions, and that their parents were also ratepayers.

In one important respect the forthcoming Coronation should be considered to be unlike even that of the late King George VI and the Queen Mother. Ever since 1937 great changes have taken place which affect both public and private participation in public events. How much greater are the changes since King Edward VII and his Consort were crowned half a century ago. Many people, members of Education Committees and governing bodies, may remember even too well the festivities of those days without always realising the changes here referred to. In 1937 it was possible for the first time for people in public or in the privacy of their homes to hear the solemn and the stirring events in London by broadcast. They also had the further wonderful opportunity of seeing them in the living photography of the cinematograph film. In June there will be in countless homes the added attraction of television. All these add to the individual's share in the central celebrations and diminish to that extent the demand for much that was considered necessary in 1902 and 1910.

Sleep

Do the more strenuous activities of the modern school-day demand more rest for children? How is sleeping time to be gauged for each child? Dr. R. E. Smith answers some of the matron's questions.

MY distinguished predecessor, Dr. Clement Dukes, was never afraid to say precisely what he thought, and the table opposite is taken from his book, "Health at School," and by and large I doubt if anybody had to lay down definite rules whether these figures could be improved upon.

Some boys require more sleep than others, or if one likes to put it the other way, some boys can do with less sleep than others. It is the same with adults, but one has to make general rules for the general good of all ages. I am sure that some people will say that boys at school have much more to do than they used to have. Schoolmasters have invariably worked on the principle that the devil still finds work for idle hands to do, and they are in competition with the devil all the while. I think it would be fair to say that with every succeeding generation there seems to be more to do at school. At the moment schools seem to be going through the phase of producing excellent plays, but not only do the schools produce plays, but also in some schools each house produces a yearly play. Societies, like debating societies, seem to have their ups and downs, some houses run dances to relieve the monotony of their almost monastic segregation, and as the term progresses these seem to take more and more time, and the boys get more and more tired, and not only the boys but the schoolmasters, so that many a schoolmaster would gladly have three weeks cut off his term to make another term, and instead of having halves as they used to have for example at Eton, we should have quarters as presumably they used to have at Charterhouse, as "quarter" is still the word for a term.

The point I am trying to make is that as the term progresses, the boys get progressively more tired and probably a complete change for a day or so is the best remedy. Many people object to children going home in the middle of the term because they run the risk of bringing back infection. I believe this is completely unwarranted, and I know of one school medical officer who told me that, although mid-term treats had been in practice for over 20 years when he had been medical officer of a boys' school of over a thousand boys, that no infection had ever been brought back. It is probably better to break the monotony of the term in a way like this than to alter the routine hours of going to bed, etc.

The table I have quoted has, you will notice, a footnote that from the beginning of November to the end of February the time should be extended to 7.30 a.m. This is a relic of the days when there was early morning school. The routine then was: called at 7 a.m., some wishy-washy tea and a biscuit at about a quarter past, into school at 7.30 a.m. for 40 minutes. Breakfast at 8.15 a.m., chapel at 9 a.m., second lesson at 9.15 to 10 a.m. I remember very well when this rule was altered at Rugby, and I remember the arguments of both sides, but the arguments that won the day were three. First of all that it was undoubtedly remembered that many boys were overtired; secondly, that in order to get this one lesson in before breakfast one had to get up half-an-hour earlier in the morning, and that half-hour was partly spent in going from the house to the classroom and back again, and having the aforesaid unpsychological nourishment; and thirdly, and most important of all, that no school which had abolished early morning school had ever gone back to it, a fact which was obtained by a questionnaire to some 20 other schools. Therefore the times in the table could remain as they were except that the 7 a.m. could be altered to 7.30 a.m., because I think everybody will agree that even if boys go to bed at the times mentioned most of them will still be asleep at 7 a.m. If a boy has to make his bed, and this is a

common practice in even expensive schools, then he has to get up a few minutes earlier.

I cannot emphasise too much that, in my opinion, Dr. Dukes was right in choosing age as the criterion upon which to base the number of hours and not upon the boys' scholastic ability. A boy of 15 may be in almost the top form at a public school but he probably needs more sleep than the duller boy who is in the lower part of the school, and this will probably be equally true of the bright boy of 8 at a preparatory school who may be in the same form as a boy of 10, and again the bright boy will need as much sleep as his older, duller schoolfellow.

What has been said about boys applies equally to girls, and I do not think that in the present day one need make special rules for girls during their periods. The attitude towards this has completely changed and the credit is due, in a very large measure, to another school medical officer, Dr. Alice Saunderson Clow, who by her work at Cheltenham Ladies' College, now almost half a century ago, almost removed from our vocabulary the phrase "she's unwell." Although there are exceptions, the rule is that girls behave as normally as possible at these times, and perhaps it is a credit to our nutrition that irregularities of the periods are now much more uncommon than they were previously.

Candidates for scholarships perhaps require special consideration. They are usually important people in the house; at Rugby, where the Arnold tradition of every boy in the VI having "Sixth power" continues, these are the boys on whom a good deal of the management of the house depends, so in addition to finding time for their scholastic studies they have to find time to manage the house, and if they are playing games actively, and perhaps even managing them they can be almost at the end of their resources by the time they appear for a scholarship. Recently I said in this journal, that 20 years ago we started allowing boys to go home for three or four days so as they could completely relax before taking the scholarship, but an Old Rugbeian who was at the school some 40 years ago tells me that this happened in his day, and therefore I must claim it as a revival rather than an invention, which has been popular.

The resilience of Youth

I have already said that the way to relieve the languor at the end of term is to relieve the monotony, and this can be done in various ways. Whole day holidays when boys can do exactly what they like always teaches us a few lessons. A few boys will stay in bed all day; others will go for a 100-mile bicycle ride and return absolutely exhausted, and presumably there is general refreshment of body and mind after these different forms of spending a day, but there are other ways.

Summer time

The extra hour of daylight at mid-summer means that if children do go to bed at 7, 7.15 or 8 p.m., there may be three or four hours of daylight ahead of them, and this is very often not conducive to sleep, and it is probably better to let children read and go to sleep when they want to, rather than to force them to do nothing at all.

Midday rest

Although I am not a hundred per cent in support of this scheme I would make out an impassioned plea for at least half-an-hour a day when a schoolboy should be allowed to do exactly what he likes within the bounds of propriety, and if he has nothing to do then he could rest.

THE AMOUNT OF SLEEP REQUIRED AT VARIOUS SCHOOL AGES

Age	Number of hours	Time
Under 6 years of age	13 hours	6 p.m. to 7 a.m.
7 "	12½ "	6.30 " 7 "
8 "	12 "	7 " 7 "
9 "	11½ "	7.30 " 7 "
10 "	11 "	8 " 7 "
13 "	10½ "	8.30 " 7 "
15 "	10 "	9 " 7 "
17 "	9½ "	9.30 " 7 "
19 "	9 "	10 " 7 "

From the beginning of November to the end of February the time should be extended to 7.30 a.m.

W. E. Shewell-Cooper, M.B.E., tells you how to

vary the menu with

Unusual Vegetables

THERE is a very large number of unusual vegetables which are quite easy to grow and yet which provide a real change in diet. One of the problems that any school has to face is production of a properly balanced diet. Animal foods, from which we used to derive the main supplies of our fats and proteins, and, of course, scarce, and thus the value of home-grown vegetables, and particularly those that provide proteins, can hardly be over-stressed.

It must be remembered, too, that the function of vegetables in a body is largely connected with that of fibre. and this provides the bulk that the bowel needs. The term "roughage," which is much employed to-day, really means fibre, and thus if we encourage young people to eat plenty of vegetables they will have the "roughage" they need. Have a change in vegetables and you give the menu an interest which is so important.

Take the Celeriac as an example; it grows like a turnip and tastes like the heart of celery. It is excellent when sliced into a salad and first-class when cooked. Another great advantage is that it will keep for six months after it has grown. The plants are raised in frames or in the greenhouse. Put them out in May or early June at 10 to 12 inches apart, giving 12 inches between the specimens. Choose a piece of land which has been thoroughly enriched with compost or well-rotted dung and, in addition, give a good fish manure at 4 to 5 ounces to the square yard.

There's very little to do other than to keep the rows hoed regularly to keep down weeds, and should it be very dry from the end of June onwards, it may be necessary to water. A fortnight before the roots are ready to be lifted you can hoe the soil up over the "bulbs" so that the upper part becomes blanched. If your school is in the South of England you may leave the roots outside in the garden until they are needed, or if you are in the North, you must dig them up in the late autumn or early winter and store them in soil in a shed.

The squashes are very much like marrows to grow, but they are quite different in texture and in flavour. A marrow has been said to be a bag of water, and there's a lot of truth in that. A squash, on the other hand, has much more solid flesh. Some of the varieties have the flavour of chestnuts and are very much liked for that reason. There are dozens of these squashes to choose from. My favourites, however, are the Hubbard, which is the most useful winter variety; the fruits will keep quite easily until February, and so they make a good vegetable during the "hungry gap." We sometimes bake these in their own skins or we steam them. Squash soup is delicious, as is squash pie.

Banana Squash is so called because it has the consistency of a banana, with a delicious flavour. It is really a summer kind. The Butternut Squash is a very meaty variety of excellent quality. The flesh is orange and dry but sweet, and it's very good baked. The fruits are usually 12 inches long and about 5 inches in diameter. The Noodle Squash has only got to be punctured at one end and be cooked for 35 minutes. You then cut it in half and the flesh falls out of the centre in shreds looking very much like spaghetti. The Baby Blue Squash we consider to have the highest quality of all the winter squashes. We grew many squashes this winter which weighed 5 lb. each and were absolutely solid.

The Seakale Spinach or, as some people call it, the Swiss Chard, is what I call a dual-purpose vegetable. It produces leaves which often measure 2 feet long and 10 inches wide, and it has thick fleshy stems which can be 2 to 2½ inches wide, ivory in colour and delectable in taste. We always

boil the leaves as spinach or else steam them and they are very delicious indeed and are by no means as indigestible as the ordinary spinach. Also, of course, the white stems are cooked like seakale and are boiled until tender. They can be served with a white sauce and young people like them very much indeed. As a matter of fact this seakale makes quite a good breakfast dish when it's dipped in a little batter and fried!

This seed should be sown thinly late in April or early in May in drills 15 inches apart, and when the plants are through the ground they should be thinned out to 9 inches apart in the rows. It pays, of course, to be liberal with compost or manure first and to make certain that regular hoeings are carried out to keep down the weeds. Always pull the leaves and stems regularly and never remove the foliage without the stems or the cropping will be impeded.

There's a lot to be said for the Hamburgh Parsley which produces snowy-white roots very much like those of a large-sized carrot. They can be either eaten grated raw (and they taste like nuts), or they can be boiled or steamed like carrots. Incidentally, they should never be peeled, they should be washed well. Some schools like them cut up small in a salad, while, of course, the tops or the parsley part can be used at any time during the season as a flavouring, as a decoration, or in a salad.

I always sow the seed early in April in drills 15 inches apart. The seeds are rather small, so they shouldn't go in more than ½-inch deep. When the seedlings are through the ground it's necessary to thin to a foot apart, though where only small roots are required, 9 inches will do. It is one of the few vegetables, in fact, where the larger roots are the best flavoured. You can always transplant Hamburgh Parsley if you wish when the plants are no higher than a couple of inches. The roots are usually ready to use from November 1 onwards, and some years I've made a sowing on purpose about the third week of July so as to be able to pull good roots in the spring.

The Kohl-rabi got a bad name because people would grow it too large. You want to use it when it's about the size of a tennis ball and no bigger. It's a good vegetable to grow on land where turnips always fail. It is certainly not difficult providing the ground isn't acid. It's a crop which always asks for lots of time. Some schools are very keen on salads all the year round and, in this case, the Lamb's Lettuce always helps as, of course, does the Batavian Endive. The American Cress is quite a good substitute for watercress, and this is usually sown early in September. Don't just dismiss these unusual vegetables as someone's fad or fancy. Try them and you will find that people will be delighted with the real change in diet that they provide.

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fifteen; his schooling was practically complete; he had passed the control examination and was apprenticed to a baker. Then at 17 he had his first attack of grand mal. After two fits in the bake-house he was dismissed and tried five other apprenticeships in rapid succession. Each terminated after one fit at work and he became thoroughly dispirited. At this stage, fortunately, he received intensive treatment and the attacks were brought under control. They used to occur every day or two; now he had gone eight months without a fit and for these eight months he has retained his job as a brick-work labourer. If he is free from attacks for a whole year he has plans ready for a much better job."

These factors govern employment

It is impossible to do justice to this report in a short review but the following statements must be made:—

(1) Heart cases often severely penalise themselves by over-enthusiasm to work at all costs.

(2) Youth is the ideal time for training and resettlement.

(3) This object is often defeated by the lure of easy money.

(4) Educational attainment varies directly with employability.

(5) Paternal unemployment is a terrible influence on the child's desire to be employed.

(6) "Adoption of energetic steps to secure satisfactory settlement before the young person begins to drift—a policy that yields rich dividends is demonstrated by the success of deaf children in Glasgow."

(7) "The lack of an adequate range of sound training courses, linked to a reasonable prospect of subsequent employment must inevitably discredit the resettlement organisation in the eyes of young people and their parents, just as it must cripple the efforts of the officer whose immediate responsibility it is to see that these young folk are safely launched in suitable work."

Avoiding segregation

Finally, as I read this report I feel that the ordinary school should make every possible allowance for the handicapped child, and if a child can go to or be kept at an ordinary school, then he should. I am not biased by M. although he has my sympathy: M., who works as a costing clerk, spent most of a long interview reciting the evils and injustice of being sent to a special school for nine years. He is an energetic, forceful and intelligent young man of 21 who developed poliomyelitis when he was two and has a residual paralysis of his right hand. He passed his control examination at the age of 11, but gives his special school no credit for that as he had brothers at home who coached him. He says that although he was forced to attend the special school he was physically fit enough to play for the football team of the ordinary school near his home and he impresses one as being just the type to do this. He insists that his life has been adversely affected by being an ex-special schoolboy. For instance, when he tried to take commercial classes at night school he felt quite lost and had to work 'like a black' to keep up with the rest of the class and he says that none of his ex-special school friends has been any better off as far as night school classes are concerned. His bitterest grievance is that people always regard him as being somehow mentally abnormal to have needed special school education."

Looking backwards I am sure we can say that to-day this child would be accepted in an ordinary school. Looking forward, can we say that we will accept every child who will benefit more by being in an ordinary rather than a special school, even if it means a little more supervision, etc., and that we will not transfer any child if he develops disease unless it is really necessary? And here I am thinking particularly of the epileptic.

L.C.C. Coronation plans

THE L.C.C. has agreed to organise, on behalf of all the education authorities concerned, the assembly of a large number of children from Greater London to see Her Majesty the Queen drive past to Westminster Abbey on Coronation Day.

Both sides of the Victoria Embankment from Westminster Bridge to Northumberland Avenue are being reserved exclusively for 80,000 children. Eight other local education authorities are being approached in connection with the inclusion of children from their areas within a radius of 15 miles from Charing Cross. 50 per cent of the children will be from more than 1,000 maintained, assisted and direct grant schools in the L.C.C. area. The Minister of Education is advising on the proportion of places to be allocated to the other education authorities concerned—those for the counties of Essex, Hertfordshire, Kent, Middlesex and Surrey and the County Boroughs of Croydon, East Ham and West Ham. As the children will be watching the procession on its way to the Abbey, they will have to be in their places at the latest by 8 a.m. They will come mainly by rail and Underground and by river, though some will come by bus and others will walk. Special arrangements will be made for handicapped children.

Why is Marmite used in School Meals?

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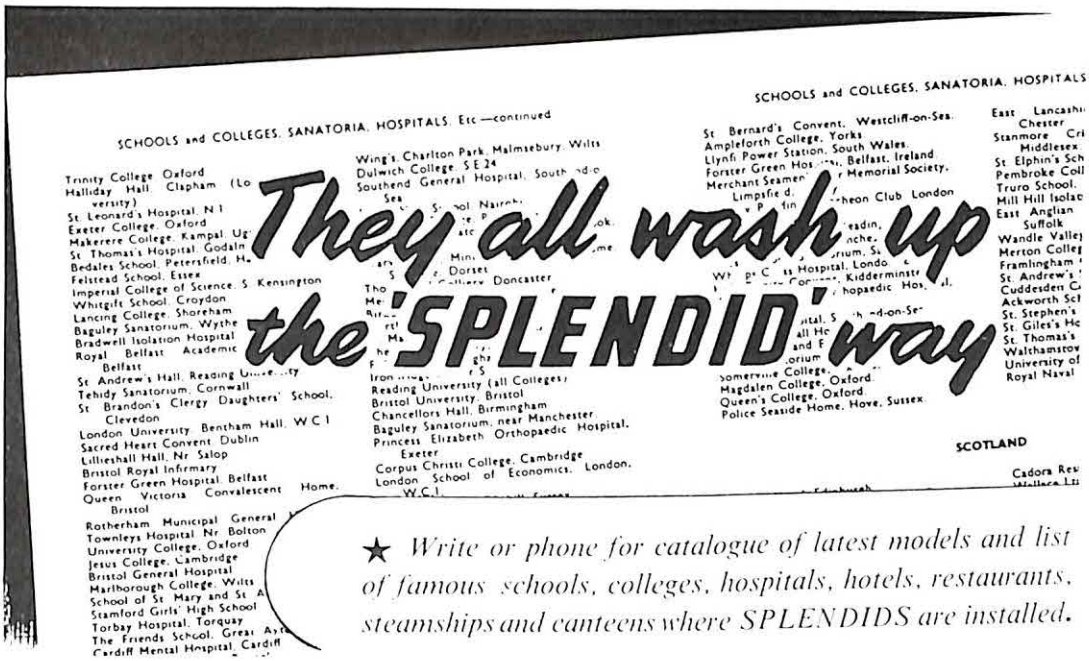

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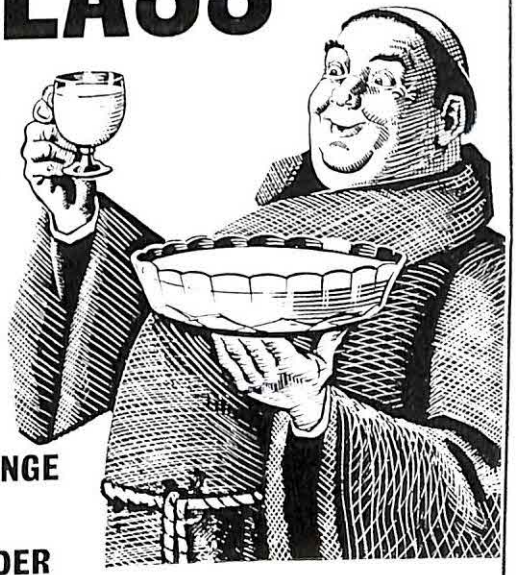

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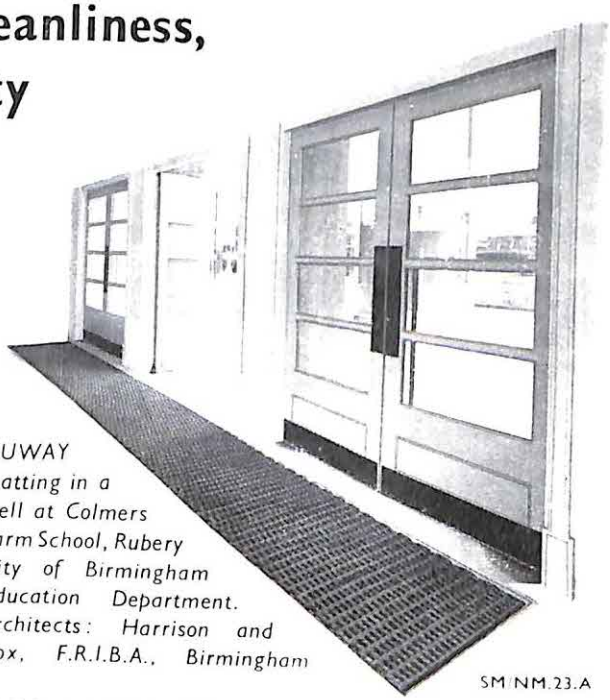

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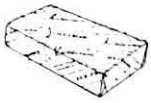

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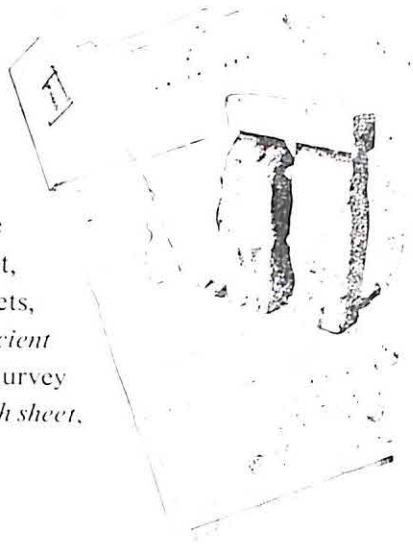

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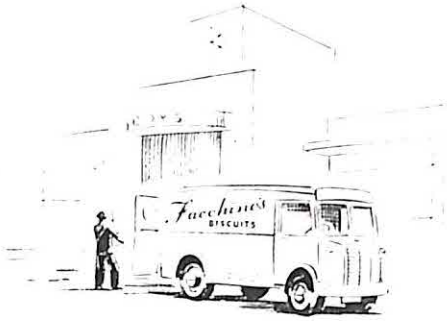

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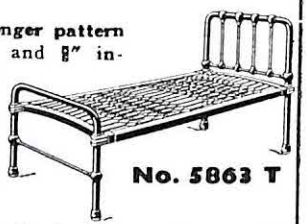

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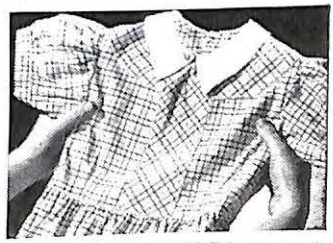

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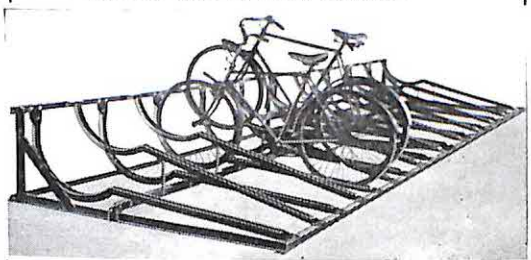

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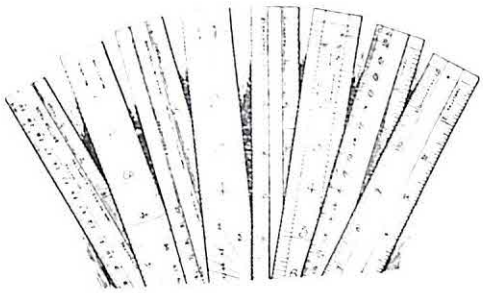

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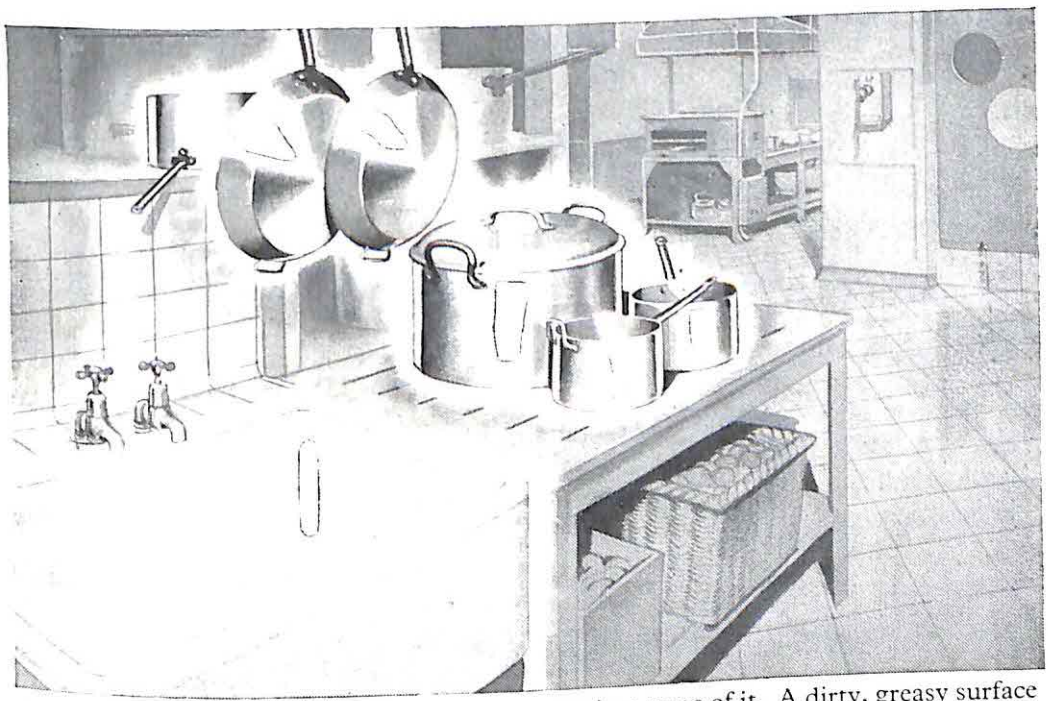

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 3. One Shilling and Sixpence March, 1953

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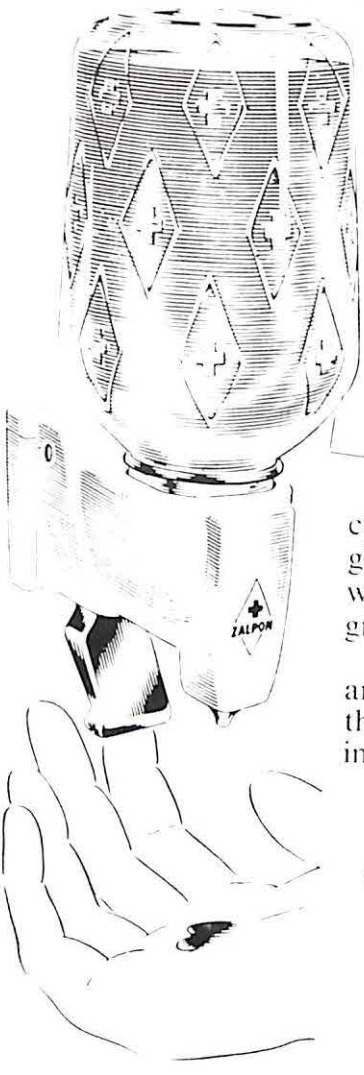

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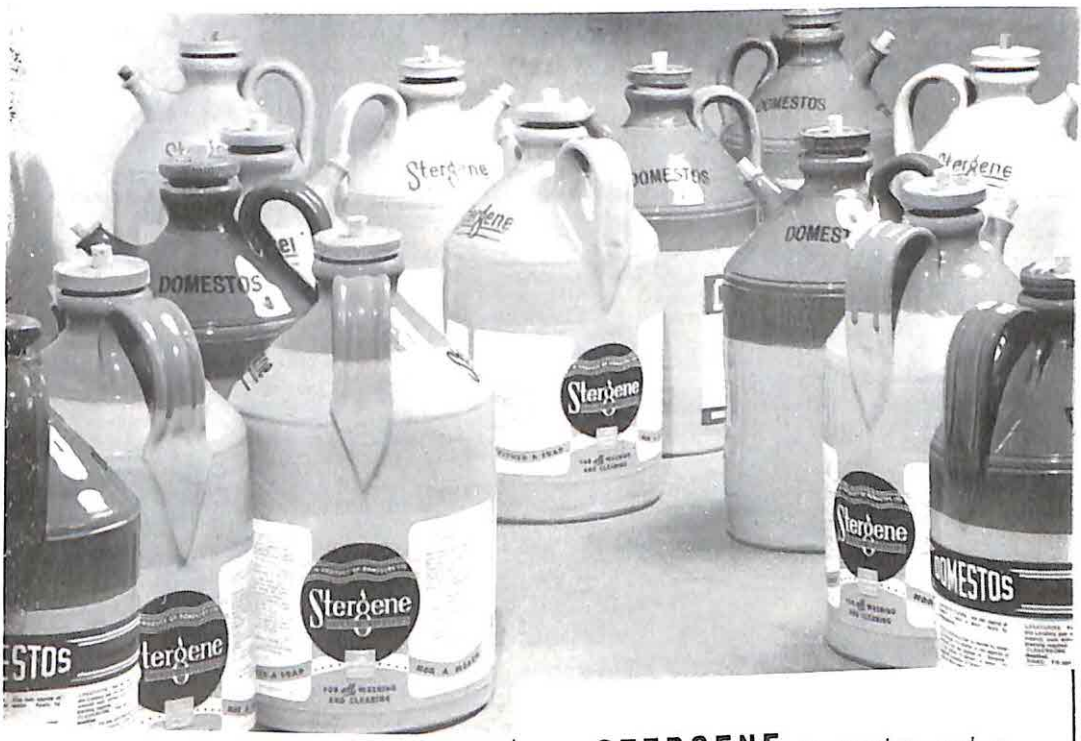

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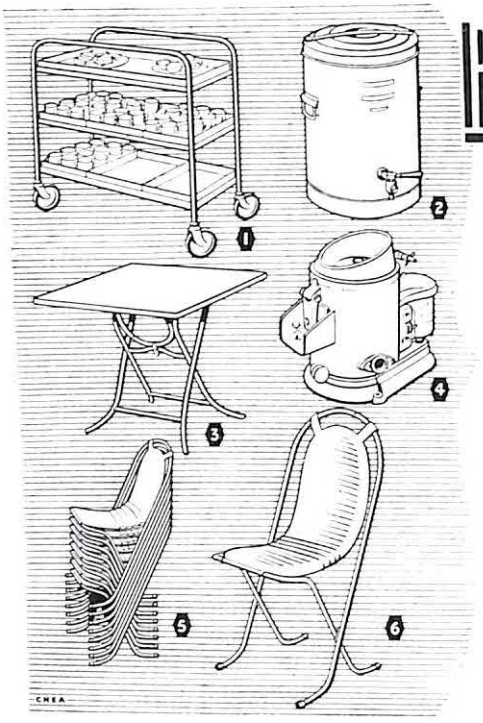

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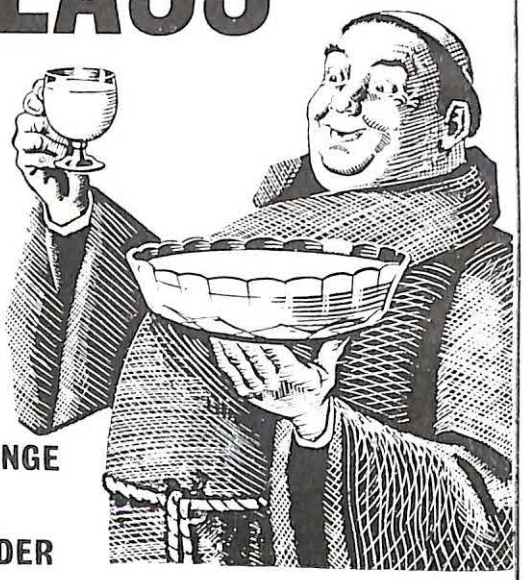

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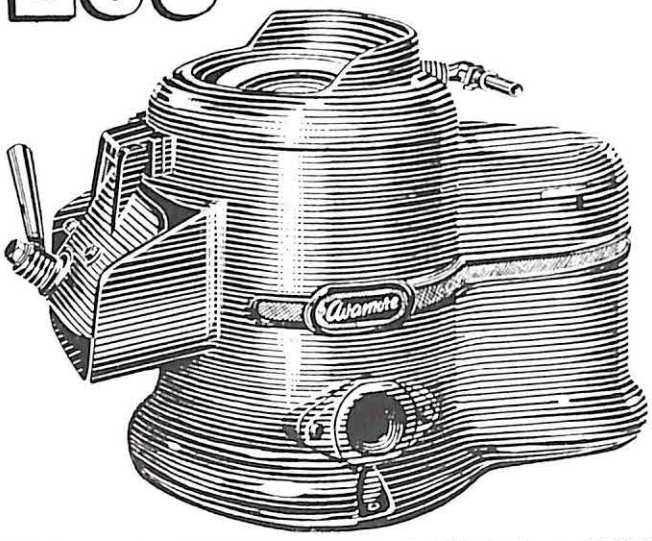

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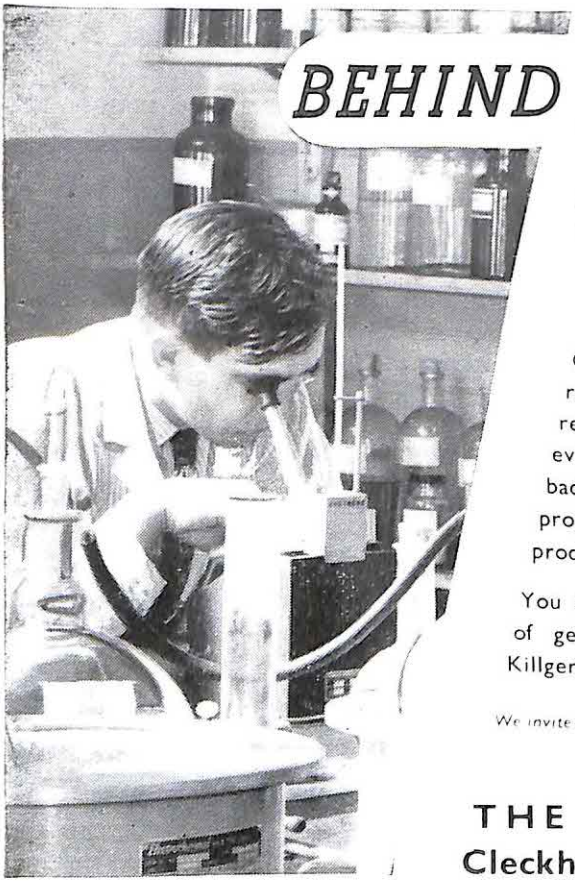

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13 No. 3 March, 1953

CONTENTS

People and Events 101

"Those Anti-Social Public Schools"—*C. L. Berry discusses the Education Bill recently before the House of Commons* . . 102

Two answers to Sir William Hamilton Fyfe *from G. C. T. Giles, Headmaster of Acton County School, Member of the Executive of the National Union of Teachers, and A Schoolmaster, on the B.B.C. talk reprinted in our last issue* 104

Being on Good Terms with the Press—*an Editor shows how the local paper can offer a public relations service for the school* 106

Holidays—*staggered or normal—can have considerable influence on the health of the school child as Dr. R. E. Smith shows in this article* 108

Lt.-Col. Evans, M.B.E., urges greater attention to **Hygiene in the School Grounds** 111

Some thoughts on **Sweets Derationed** *from a school doctor and a dietitian* 113

Mrs. E. Midgley, visiting the Catering Exhibition, Manchester, discovers a new trend towards **Good Design in Canteen Kitchen Equipment** 114

And Doreen Davies selects some ideas from the Packaging Exhibition that encourage **Well-Packed Food** 115

The Bursar seeks a new economy in administrative expenditure by **Centralising Food Stores** 116

Planning and Maintaining Lawn Tennis Courts—*by W. E. Shewell-Cooper, M.B.E.* 119

How to start a Photographic Club—*first of a new series on organising and running school hobby societies* 120

Staggered Holidays—*some details of the South-West Development Association's campaign to alter school vacation periods* 121

The Editor and Management are always pleased to offer the hospitality of their columns to readers for contributions to their editorial or correspondence columns, but it must be understood that they do not necessarily hold themselves responsible for, or agree with, the opinions expressed in such contributions. Contributions should be addressed to The Editor, SCHOOL & COLLEGE MANAGEMENT, 18-20 York Buildings, Adelphi, W.C.2.

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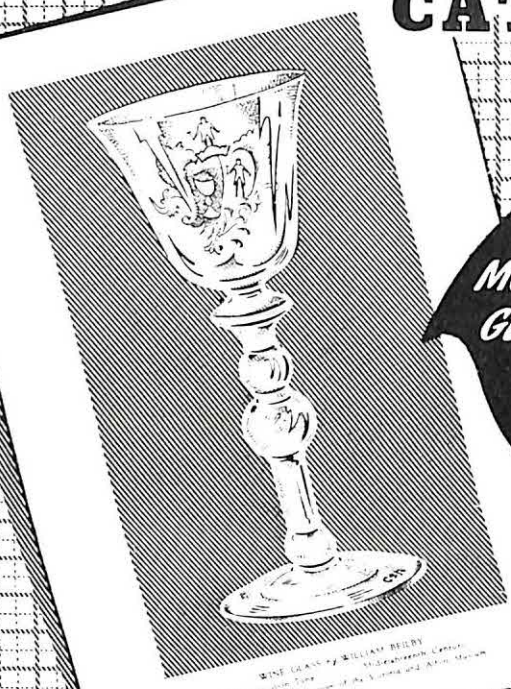

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People and Events

A STORY was recently told of a famous but far-away and vague headmaster. He met by chance an old pupil of his whom he had not seen for fifteen or twenty years. "Let me see now," he said, still shaking his pupil's hand, "was it you or your brother who was killed in the war?"

* * *

Miss Constance Harding, headmistress of a Hampton Wick, Middlesex, school, recently appeared in TV's woman's program, "Leisure and Pleasure." She is the sister of Mr. Gilbert Harding.

* * *

Parents are undoubtedly being subject to a high-pressure sales-campaign by salesmen of educational reference books. Schools, too, have been visited in attempts to get headmasters and headmistresses to distribute forms to parents and so give some kind of official blessing to the salesman. Headmasters in Middlesex schools have been warned by their education authority against the wiles and pressures of such salesmen. Protests to publishing firms have brought apologies and promises of disciplinary action against offenders.

* * *

Although Leyton Education Committee have turned down the suggestion that pupils should leave school earlier in the winter, a parent-teacher association intends to continue their campaign on behalf of the idea.

* * *

The British Ship Adoption Society maintain links between schools and merchant ships' crews. About 900 schools are already in touch with ships through the Society and, says the Secretary, Mr. S. E. Britten, there are 80 schools on the waiting list. Schoolchildren pay visits to the docks "when their ship comes home."

* * *

At the beginning of this term there were at least 49 unfilled vacancies for teachers of science and mathematics in boys' and mixed grammar schools and 116 in girls' schools. Several girls' schools had no applications for advertised vacancies. The future prospects are not encouraging. University training departments report the presence of only 11 women chemistry students and four physicists.

* * *

An interesting figure was brought out by the replies to a questionnaire sent out by the Head Masters' and Head Mistresses' Associations. Of teachers taking up first posts, 156 out of 396 had first- or second-class honours degrees, that is 39 per cent. The figure was nearer 55 per cent before the war.

* * *

Mr. E. Sprawson, formerly of Repton, has been appointed Principal of the two new Public Service Schools in Pakistan.

* * *

Mr. F. H. Shaw, formerly of Marlborough, will be Headmaster of the pre-apprentice school.

* * *

Mr. C. Collins, Deputy Headmaster of Burford Grammar School, has been appointed Headmaster of Marlborough Secondary School, Woodstock.

* * *

More educational books than ever were published during the year 1952. In the returns from publishers analysed in *The Bookseller* "educational books" outstripped "children's books" for the first time in 1951. Last year they increased their lead. Of the 1,685 educational books published last year, 348 were reprints or new editions.

* * *

The twenty-first anniversary of the foundation of the Oxford Society occurs this year. The Society will arrange during the summer for a display of many of the University's treasures and those of the Colleges in the Goldsmiths' Hall, London.

(Continued on page 118)

"THOSE ANTI-SOCIAL PUBLIC SCHOOLS . . ."

On February 10 the Committee of the House of Commons considered the Education (Miscellaneous Provisions) Bill, which C. L. Berry believes has greater significance than Press reports might indicate.

THAT eternal vigilance which is the price of liberty, may require even educationists most remote from educational law to be aware of the activities of Parliament. The Education Bill now before Parliament contains a clause which may well puzzle even the most experienced administrator or lawyer. It is said in the Explanatory Memorandum that Clause 7 "regularises the existing practice whereby, *in order to make up deficiencies in their maintained school provision*, authorities take up places in direct-grant *and independent* schools." The words here italicised are important, as will be shown. The first section of Clause 7 is remarkable enough, for it declares that "a local education authority shall have, *and be deemed always to have had*, power to make, with the approval of the Minister, arrangements for the provision of primary and secondary education for pupils at a school not maintained by them or another local education authority." The reason for this clause has never been adequately explained, but if it does indeed regularise present practice and in no way restricts the powers of local education authorities, it may be welcomed. On the other hand, it may be interpreted to mean that a local education authority may not arrange for even one child in its area to be educated in an independent school without "the approval of the Minister." So interpreted, the clause would seem seriously and needlessly to limit the liberty of local education authorities.

The remaining sections of Clause 7 specify the arrangements which a local education authority may make where they provide education for a pupil at an independent school, either under the section quoted above or under the provisions of the Principal Act relating to so-called "handicapped" pupils.

The local authority making the arrangements *shall* pay the *whole* of the school fees:

(1) Where a pupil fills a place put at the authority's disposal by "the proprietors of the school";

(2) *Where the pupil does not fill such a place,* but the authority is satisfied that education suitable to his age, ability and aptitude cannot otherwise be provided for him;

(3) Where in any other case, the authority is satisfied that the pupil requires special educational treatment which it is expedient should be provided for him at an independent special school.

Another section of the same clause provides that boarding as well as tuition fees shall be paid in full "where board and lodging are provided at the school and the authority are satisfied that education suitable to his age, ability and aptitude cannot be provided for him at any school unless board and lodging are also provided for him. Clause 7 concludes with the very unusual declaration:

> The powers conferred on a local education authority by sub-section (1) of this section *shall be in addition to and not in derogation of the powers conferred on them by the Principal Act.*

This should mean that the local education authority may still exercise its powers and perform its duties as declared in Section 76:

> So far as is compatible with the provision of efficient instruction and training and the avoidance of unreasonable public expenditure, pupils are to be educated in accordance with the wishes of their parents.

It is difficult to see how the Ministry can lawfully prohibit any other arrangement in respect of individual children, involving something less than the payment of "the whole of the fees," provided that the two conditions laid down in the above section are satisfied. It cannot be imagined that the Ministry would violate or even prevent the observance of a "general principle" which is part of the Statute Law of England.

Although the clause as quoted or summarised above was proposed by the Minister, amendments thereto have since been proposed—also by the Minister—and accepted in Committee. To (1) are added the words: "and the school is one in respect of which grants are made by the Minister . . ." This unfortunate amendment renders inapplicable and untrue the reference to *independent schools* in the Memorandum. It is difficult to know what useful purpose is now served by this sub-section since governors of direct-grant schools are required by Statutory Regulation to offer places to their local education authorities if so desired, and the authorities require no new legislation to allow them to accept such places! The whole of the sub-section, as now amended, seems to be restrictive rather than permissive and to exclude schools which the Bill was intended to include.

It is strange to have to record that the proposals outlined above led to a strongly hostile attack in Committee on independent schools in general and on the public schools in particular. Mr. Cove (Aberavon) described public schools as anti-social. In his opinion it was wrong socially and nationally, and educationally bad, "to continue to maintain a separate system of education now to be increasingly bolstered up with public money." What completely invalidates Mr. Cove's argument is the fact that the nation does not "maintain" a separate "system" of public schools. Those schools are maintained at no cost whatever to the national exchequer.

There are public schools, but there is no "system" of public school education. Each of these schools is entirely independent. Lastly, there is no proposal to "bolster up" any independent schools with public money. Those schools will not in any way be "bolstered up" by the few children who may be supported there by local education authorities. Even worse, in Mr. Cove's opinion, was the proposal that the clause should apply also to preparatory schools, "the beginning of an easy way to privileged education and social advantage." No one who attacked the independent schools said what he would do with them. Mr. Maude (Ealing) assumed that the critics would in some way gradually absorb them within the State and Local Education Authority system. The debate should make it clear that there are politicians who, while demanding that there shall in some respects be no departure from the agreements which produced the Butler Act, are completely at variance with those agreements and that Act when considering independent schools. They would apparently repudiate and, if possible, repeal the whole of Part III of the Act, and instead, legislate to nationalise, expropriate, disendow or dissolve the public and other independent schools.

The White Paper on *Educational Reconstruction* which in 1943 described the reforms later incorporated in the Butler Act, said of the system of education then proposed:

> The keynote of the new system will be that the child is the centre of education

(*continued on next page*)

Public Schools and the Future

Two answers to Sir William

from G. C. T. Giles, Headmaster of Acton County School, Member of the Executive of the National Union of Teachers.

TO Sir William Hamilton Fyfe, the loss of the Public Schools would be a disaster to our educational system. He claims that the best half-dozen Public Schools are the best six schools in the country and possibly in the world. Their excellence, he says, is due to their independence. So in spite of their one serious defect—the fact that they are undemocratic and ". . . create and maintain distinctions of class and are therefore socially undesirable"—he wants them to survive—with the help of a State subsidy. He offers a solution which in his view would meet the claims of democracy and of independence.

His solution is in fact based on his experience of Christ's Hospital—a school which is unique and is in no way a Public School comparable to Eton, Harrow, Winchester or any of the other well-known Public Schools. Indeed, as he explains, the provisions of the foundation ensure that its clientele is not limited to, or even mainly drawn from, the well-to-do to the exclusion of the ordinary child. But this exclusiveness is precisely the basis of the real Public School, as Sir William admits. Whatever their origin—and some of them were established for the education of the poor—the Public Schools to-day are the exclusive preserves of the well-to-do, of a class which still regards itself as the ruling class and intends its sons to succeed them in the dominant and lucrative posts in public life, which they still largely monopolise.

In this regard the Public Schools and especially Sir William's "six best" have been strikingly successful. They are the world's most exclusive and successful employment agency.

In 1939—and there is no evidence to show that there has been any great change in the position since then—out of 830 bishops, deans, judges, stipendiary magistrates, highly paid officials in the Home and Indian Civil Service, Governors of Dominions and directors of banks, 636 or some 76 per cent were drawn from independent schools. Of these, 394, or 47.5 per cent, came from twelve schools. Thus they have something much more substantial than "snob value" to offer their clients. They are "successful" in that a very high proportion of their pupils eventually obtain important and influential positions in after life. They succeed not owing to superior qualifications or education, but merely because a high proportion of such posts is still earmarked for wearers of the old school tie. Take away their undemocratic class basis and their undemocratic class privileges, and you take away the main reason for their existence and their success.

True, the six best Public Schools have

those anti-social public schools . . .

and that, so far as is humanly possible, all children should receive the type of education for which they are best adapted.

This might even in some cases need to be a boarding education, and in this direction "a new departure may be looked for."

There is no reason why the benefits of a boarding education should be thus limited (i.e., to independent schools), and it is widely held that such facilities should be extended within the ambit of the State system.

It is no fault of the independent schools that to-day, ten years after the issue of the White Paper, the benefits of boarding education are still so limited, nor that no action whatever has been taken during the whole of the same decade on the recommendations of the Fleming Committee.

That independent schools, however unpopular in certain quarters, can still be of national value receives interesting support in relation to "handicapped" pupils. The new Bill will substitute in the 1944 Act "in any school maintained by a local education authority *or in any school not so maintained*, other than one notified by the Minister to the local education authority to be, in his opinion, unsuitable for the purpose" for words which refer only to maintained and assisted schools. Both local education authorities and the Ministry have to recognise certain independent schools, including even proprietary schools, for certain categories of "handicapped" pupil. The maladjusted child is the most notable case. Here it is interesting to read the recommendation of the National Association for

Hamilton Fyfe

certain other substantial advantages, which are still denied to the *real* Public Schools. They are not subject to the same extent to the recurrent waves of economy. They pay their teachers better. They have a better staffing ratio—an average of twelve pupils per teacher instead of twenty-six in the real *public* schools. They have better amenities. But these advantages do not stem from "independence": they merely mean that democracy has not yet fully appreciated the importance of education. But democracy is learning and waking up. Soon it will sweep aside class privilege in education and provide the best for all its children.

from a schoolmaster

I HAVE spent a number of years working and teaching in a variety of schools, including Public Schools. I share Sir William Hamilton Fyfe's regard for such schools and know, perhaps better than many who have not had such varied experience as I, what a first-rate education the better type of Public School still has to offer.

Sir William Hamilton Fyfe, most of us will think rightly, attributes the unique "flavour" of the Public Schools and their success to the fact that they have been independent. To quote Sir William: "What excellence they have, they owe to their independence."

To-day, these schools in the main still preserve their independence. They have their difficulties as your Headmaster readers probably know better than I. But most people agree with Sir William when he says that, to-day, few of the Public Schools appear to be in immediate danger of extinction. Quite the opposite. Waiting lists are longer than ever. However—for reasons I will discuss, if I may, a little later—many headmasters and Sir William regard this obvious flush with misgivings, more as the sign of coming troubles than current good health.

So Sir William sounds a note of alarm that we know is echoed in the studies of many Public School Headmasters. He, and they, may be right. However, what I and, I know, many who have given so many years of their lives working in Public Schools, are uneasy about is the remedy proposed. The crew are becoming increasingly suspicious that the captains are proposing to surrender without a fight. Two lines in Sir William Hamilton Fyfe's article sound a most ominous note: "*If the Public Schools are going to be preserved by State aid—and I do not see how they can be preserved otherwise. . . .*"

Many of us working in such schools have still a lot more faith than that. And, if I may say so, what we find particularly disturbing, if not irritating, is the assurance from our captains that, when we surrender, we'll not be surrendering our "independence." Sir William's very next words are: "Condition one: they (the Public Schools) must retain their essential independence." We ask for unconditional aid, or aid on our conditions, and don't seem to realise that all passes are sold because someone believes he can make that bargain and doesn't see that "aid" and "independence" are contradictory terms.

There seems a grave danger to-day, for those who have always extolled independence and private enterprise, to lose their nerve. Not all of us are happy about the attitude of the farmers, for example, now they have got what they professed so ardently to want —a greater freedom from control. Price guarantees, limitation of competing imports — controls in our favour — must remain. Freedom, independence, seem to mean, to some these days, "aid without obligation."

True, that is not quite what Sir William wants; he is not entirely blind to obligation. "We'll become, of course, more democratic."

Some of us may perhaps be forgiven if we receive such a suggestion with a quizzically raised eyebrow. Why? Because we know very well that, in fact, there isn't really a crisis facing the Public Schools. There's a boom . . . everybody admits it. The only real trouble is that (in Sir William's words)

(Continued on page 122)

continued from page 103

Mental Health on Boarding Schools which may receive maladjusted children:

> It may well be best to allow them to continue on a voluntary basis, subject to approval and inspection by the Ministry of Education, in order that progressive experimental work may be undertaken by pioneers in the field.

They refer also to "the failure of the many local education authorities to establish such schools." There is no reason why, given such schools, "progressive experimental work" should not be undertaken in them by pioneers as in the independent schools. The most important fact, however, is that places in these independent schools are still needed from time to time by local education authorities.

Our Front Cover

BOWED over a chessboard, a puzzle, perhaps adjusting some part of a model locomotive—at such moments we see in children a degree of interest and concentration that sometimes makes us jealous. Rarely, only too rarely, does the teaching we offer so completely absorb the whole child. From our own experience we know that such moments of total absorption leave a content, a quiet, that persists.

There is nothing more boring than parlour games and card games that do not claim us, and nothing more fascinating than those that do. Who hasn't childhood memories of wet afternoons and tiddley-winks that won't wink properly on the nursery tablecloth, and of pointless card games, weary climbs up ladders after coming down long snakes, and—perhaps the cause of much of the *ennui*—of bright brothers always beating us?

In school all such games can play a part, from chess to—whatever is the bottoms in parlour games; perhaps those big, expensive novelty games that seem to be devised for playing on wet weekends in the country homes of house-bound and frustrated golfers. We have our chess and draughts clubs and —we trust—darts matches and whist drives in school. The charm and a lot of the value, however, of so many of the parlour games lies in that spontaneous, "Let's play . . ." The well-equipped school has, when it can be managed, some quiet-room set aside for such moments. It can be one of the most useful and—yes—one of the quietest places in the whole school.

BEING ON GO

I WAS interested to see in your magazine a few months ago, in a discussion of the right and proper relationships a school should strive to have with the community of which it is a part, a mention of the Press. A kindly mention . . . Your writer said that we should be neither ignored nor feared; we could be used. That view, if I may say so, represents a great advance and, I am certain, a wise one.

Let us be practical. How can a school best use the Press, local and sometimes national? "Use" is, perhaps, the wrong word; it suggests publicity-seeking. How can we help one another?

The interests of a local editor in a school in his locality is a very natural one—it is our business to be interested in everything that goes on within the area our paper serves. That interest is neither impertinent nor "unnecessary"—as I have sometimes heard it described. It is no use, in the History class, rejoicing in the struggle for freedom of speech and the freedom of the Press to play watchdog to tyranny and abuse, and then proceeding to bang the door in the face of a reporter from "the local rag." If you think we only print "sensational rubbish" that may be because the more sober sources of news choose to close themselves to us. But don't let's go into that. I'm writing in your columns because they appear to go to schools and headmasters and headmistresses who have a contemporary, unjaundiced view of the Press, or at least some sections of it.

Your local editor, if he is not already a friend of the school, should be. Know him —and trust him until you have reason to do otherwise. Trust him to know his job; that is, to know what is news, what the community of which you are a part want to know about you. I have found headmasters not chilly, but too enthusiastic, sending me pages and pages of school sports results, down to the winners of heats, and mounds of other material, far more than any paper could print. And when they have seen it all rendered down to a bare inch or two, there has been disappointment, sometimes ill-feeling. We're not interested . . .

We are. My ideal headmaster or headmistress would be known to me. I should be able to feel, at any reasonable hour and (sometimes) at what might be thought by some to be an unreasonable hour, that I can pick up the telephone and have a word or

OD TERMS WITH THE PRESS

The editor of your local paper can very often be the best public relations officer the school could wish for—if he is treated like a friend and trusted, rather than an enemy to be kept out of school affairs at all costs.

two. Accessibility is the all-important thing. I don't want lengthy hand-outs, a school's version of an event. Fixture-lists, the term's diary, the programme and cast of a school play, the magazine in advance, if possible—those are the things I want and which I appreciate receiving as a matter of routine. I can then do my job, arrange for what I know will be of interest to be reported.

It is worth far more to me than it is even to you that our relationship should be smooth and one of mutual confidence. You can take it that, if there's going to be something in the paper that you may not like, I am not going to leave it out because we are friends. But, because we are friends and I do, I hope, know my job, you may be sure that you'll be one of the first to hear of it. I shan't venture into print and onto the streets before I have submitted, say, a critical letter to you for comment, and heard your version, and invited you to state it, so that my paper may be fairly balanced.

It is always unwise to ignore the Press, refuse to be seen, to slam down the telephone receiver. Doctors, professional men who have even more to "fear" from the Press than headmasters, rarely do that. They may only say nothing very charmingly but they don't throw away the opportunity to hear, as soon as possible, what is going on and what is being said, or likely to be said.

Another point I should like to make and one over which I have, on occasion, been in trouble with my school friends: *If you have given one newspaper a fact or a story you have given it to the world.* Perhaps you don't mind in the slightest, say, your local paper saying that young Master X, who is, of course, the son of the famous Mr. Y, has won a prize and will be receiving it, along with other prize-winners, at Speech Day next week. The name may merely be printed in a list you have given to me and I may give it no more prominence than the name of Master B, the butcher's son. But when the trouble starts, and the telephones begin ringing from London, and shoals of photographers appear, and the TV people are interested, and the Newsreel cameras turn up, I haven't split. I may have slipped up; perhaps I ought to have suggested to you that the name should be omitted from the list. What happens is that almost everything that is printed is carefully read by men trained to look for news of what they consider more than local importance. They do say that all the best news stories are to be found in the local Press and begin there. So don't imagine you can limit the circulation of a fact or story to merely your local paper. "I only intended *you* to report it." Perhaps . . . but there's little or nothing I can do to prevent a local whisper suddenly echoing round Britain. You shouldn't give me anything you don't want the whole world to hear.

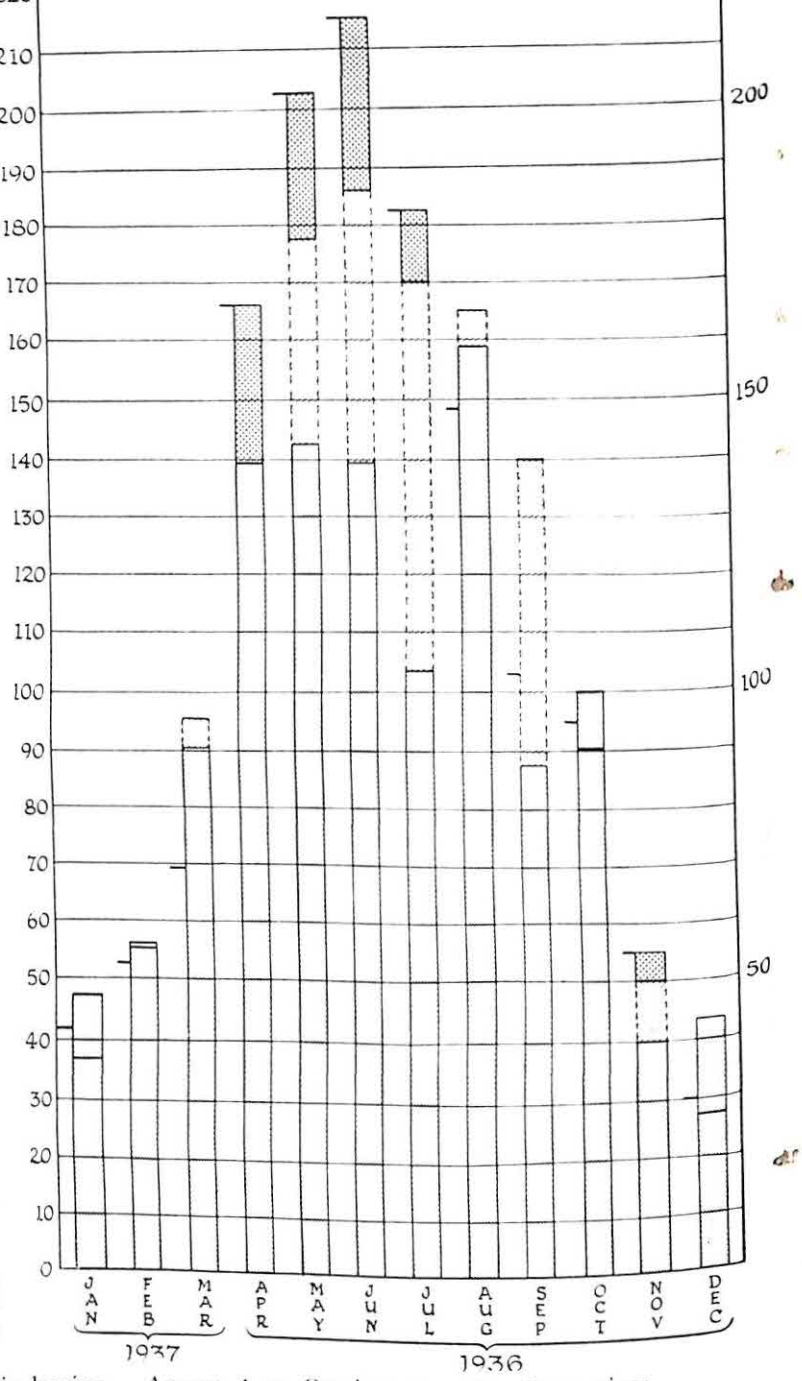
In fact, I would have told you quite early in our acquaintance, that it is part of my job, as it is for most provincial newspapermen, to pass on, usually to one national paper, news and notice of forthcoming events that I believe are of more than local interest. Look at your local newspaper editor in this way—he's your link not only with the local community but with the whole community. You may want all Britain to hear or know of something. Then he's the first man to see, to advise you. There's no need to rush up to Fleet Street or start playing amateur reporter on a bad trunk line. It's my job to tell the world as well as our town.

You may feel, as you read your local paper, that one school in particular, is always being mentioned and resent the fact. You may even sink to measuring the editorial copy given to a rival and working out what that would have cost if paid for at usual advertising rates. It hasn't been paid for. You can take it that an editor is nearly as unhappy as you if his paper displays an obvious lack of balance, if any one section of the community, or any institution, is mentioned every week, week after week, and on nearly every other page. It is not partiality but poverty, when it occurs, poverty of material. If you don't like it there is always one thing that you can do—tell us something about yourself, see that our photographer has a chance to get pictures at your next match or school play, send us your magazine or fixture list.

(Continued on page 110)

HOLIDAYS

Several local authorities have recently considered the suggestion that school holidays should be "staggered" . . . a hardy annual in all educational discussions.* But the idea raises more than administration problems—its effect on the health of the schoolchild must be taken into account. Dr. R. E. Smith, Consulting Medical Officer, Rugby School, in this article points out that peak sunshine periods must be considered when selecting a holiday period that will be most beneficial to health.



HOLIDAYS vary enormously in different countries. In England there have been considerable changes within the last century. Their proper function is recreation in its widest sense, and there are always people who agitate for a change.

Parliament sets a good example in having long holidays and a short week, working very hard from Monday to Thursday, and having on Friday a day when members can attend if they want to, and can attend to other duties every weekend. But this would be of little use as a holiday unless there were long intervals at Christmas, Easter, Whitsun and during the summer. Lawyers have rather the same hours, and the Law vacations last year were from December 24 to January 6, April 11 to April 15, May 31 to June 3, and the long vacation from August 1 to October 11. My diary gives the Law sittings as well which do not seem to correspond exactly with the Law vacations. University terms are usually nine weeks, for it is compulsory for the undergraduate to sleep sixty nights in college to keep a term, and he usually has nine to ten weeks, a full term, in which to do it. His vacations are roughly one month at Christmas, one month at Easter and four months in the long vacation; but during the long vacation he is expected to do a good deal of reading and for certain students, particularly medical, there are organised courses in the long vacation term.

* *Latest proposals are given in detail on p. 121.*

There is a campaign, as reported in *The Times* of Tuesday, November 25, 1952, to make the school year begin in January and end in December, so as to make the holidays cheaper. My reason for discussing this is medical, because December is still a month when many boys and girls are ill and it is exasperating when children who have worked for examinations like the General Certificate of Education are prevented from taking it by illness, and I think this point of view should be kept in mind. July has the advantage that children are usually well at this time of year, and has the non-medical advantage that if a child does fail or has to take some endorsement to attempt to get a credit in a particular subject, then he can do so in the following December, which is only one term ahead instead of two terms ahead if he takes it in July of next year. I can hardly imagine anybody wanting to have an examination in March which, from the point of view of illness, is the worst of all terms.

The Chairman of the South-Western Development Association, speaking in support of this campaign, said: "Holiday accommodation is overtaxed because we foolishly push half the population into it for two or three weeks in July and August every year, and it is the school examinations that prevent holidays from being spread over a longer period. If the examinations were held before Christmas the children could do their studies in the winter and parents would not be reluctant to take holidays in the early summer." Presumably he refers to the provision that parents may take their child away from a State School for one week in term time. I agree with the speaker when he says that we must make an attempt to lower prices. His idea is to have four holiday periods: March 12 to 26, June 5 to July 3, September 11 to October 10, and December 19 to January 2. We must agree with him that this would mean a complete upheaval, and I guarantee that if a vote was taken most would agree that these were far from convenient times.

Linking with the parent's vacation

For many years my family, consisting of wife, son and two daughters and myself, have had a spring holiday, and I think I can fairly say that we have enjoyed this certainly as much as our summer holidays which we have occasionally taken, although very often it has not been for more than a week. By spring I really mean April, and we may have got into rather a groove in that we usually go to the same place, although we almost invariably hire a different house and fend for ourselves—sometimes with, sometimes without domestic help. This is the time of year that one has all the advantages of the summer except the one of not being able to bathe regularly.

If this term, from July 3 to September 11, is going to include a fortnight's holiday which would mean five possible staggered holidays, then this scheme would probably be a real help to all. One objection which is usually raised is that in residential schools boys and girls in different counties would have different holidays, but the boys and girls in residential schools are few in number, and their holidays are often governed as much by their parents as by the schools. As already quoted, the lawyers, for instance, can obviously only take holidays with their children during the long vacations, and I presume this applies to the 625 Members of Parliament, although with the lords and officers of the House, etc., a rather larger number of persons are involved.

Pioneering for school holidays

Eleanor Rathbone made history when she brought in her novel scheme of children's allowances, which has now become one of the better features of the Welfare State. We need a pioneer who could organise a scheme whereby the children get a week or fortnight's holiday by the sea or in beautiful country. I am not one of those people who think that children should come first in everything; I would like to see the mothers included in such a scheme, and I am not altogether against the fathers. I certainly think that life on a farm has many attractions, but here I am thinking of my own youth and especially of the urban people who came to stay with us in the middle of Norfolk.

It is, of course, difficult to compare one year absolutely with another, but I have before me a graph of the hourly occurrence of bright sunshine from April, 1936, to March, 1937 (the only year of which I have records to hand). The total hours of sunshine for the year were 1,149, and there were 3.1 hours *per diem*. In the periods mentioned from December 19 to January 2 (15 days) there were 14 hours, less than one a day; in the 15 days from March 12 to 26 there were 48 hours, or 3.2 hours daily; from June 5 to July 3, these 29 days had 135 or 4.6 daily, and the 30 days from September 11 to October 10 had 112 or 3.6 daily. The monthly hours of sunshine show that June is the best time for a holiday as regards sunshine, but one has to remember, certainly at the seaside, that it takes the

(Continued on next page)

April and May sunshine to warm up the sea which is at its warmest in July and August. It is important to realise how much sunshine we get. If anybody thinks I am being prejudiced I would answer that for the year 1951 the highest mean temperature, according to Whitaker, was 51.1 and the lowest in England was 46.9, and the sun 3.2 at two midland towns, and the highest was 5.2 at Falmouth. Hours of sunshine is an excellent index to how good a holiday has been, for with the sun shining all the time can be spent outside pursuing any hobby one likes, whether it be tennis, golf, cricket walking, watching birds, sailing, reading, or even sitting still with periodic bathing excursions.

Within reason the greater the city the greater the need for getting away from it, and perhaps this is why London County Council makes special provision for holidays. In 1950, "through the courtesy of the International Help for Children, thirty-four London children, aged 8 to 13 years, suffering from asthma, were selected and sent in the summer to La Bourboule, France, for a six weeks' recuperative holiday. Later in the year twelve London children, aged 8 to 14 years, also suffering from asthma, were selected and sent to Malix, Switzerland, for a six months' stay, through the generosity of the Swiss Mountain Cure Aid for British Children." This is a very small number, but we have to remember this is a very select holiday. A much larger number, i.e., 1,600 children, 930 boys and 670 girls, were recommended for admission to residential schools for delicate children. Of these residential schools four are at the seaside and three are in the country, and most children stay at these schools for two terms, the shortest period being at least a term, the transfer back to home and ordinary school being made on the recommendation of a medical officer.

People are beginning to realise the value of recuperative holidays, and there is an increased demand for them. I quote in full from the report of the School Medical Officer of London County Council.

"The services of voluntary organisations such as the Invalid Children's Aid Association, Women's Voluntary Services, Jewish Board of Guardians and the Children's Country Holiday Fund, continued to be used in connection with the provision of recuperative holidays for unaccompanied children, and the Council's experiment by which selected children over the age of seven years are sent to a private hotel at the seaside in the care of holiday organising staff appointed by the Council, was extended and approved as an integral part of the Council's provision for recuperative holidays. Full use was made of the Council's own recuperative holiday home for children at Mayfield, Sussex, and a second home at Littlehampton was opened in April for the reception of children aged 5 to 8 years.

"The majority of placings in recuperative holiday homes for adults and accompanied young children was carried out by direct arrangements made by the Council, but the services of the Family Welfare Association were used as a placing agency for specially difficult cases. Additional holiday home accommodation was approved for expectant and nursing mothers and young children, and increased facilities for recuperative holidays for persons suffering from various disabilities were provided. Such special categories include blind, tuberculous and epileptic persons and adults suffering from infantile paralysis.

"The following is a statement of admissions to recuperative holiday homes in 1950. The comparable figures for the year 1949 are also given."

	Unaccompanied children		Expectant and nursing mothers and accompanied young children		Other adults
	Under 5 yrs.	School children	Mothers	Children	
1950 ...	1,548	4,255	340	566	3,439
1949 ...	1,517	3,121	379	671	2,779

My views can be summed up very briefly. Examinations should be taken at a time when children are healthiest, and this is certainly not in the winter: and that any scheme which is going to give children a week or fortnight by the sea or in beautiful country should be encouraged, even if there are administrative difficulties.

(Continued from page 107)

One last point that does arise, though it may surprise you. There's a popular myth that anyone who writes anything "for the papers" is paid for his contributions at munificant rates. Yes, I have had a hard-up games-master talking in terms of guineas a week for two or three lines of results and commentary. We are prepared to pay, and our rates of payment for anything will be declared on request. But there's no need for anyone to be haunted by the feeling that they're presenting me with hundreds of pounds worth of stuff for which they are not receiving a penny. I mention that point only because I know it does arise among some people not familiar with the Press.

Lt.-Colonel F. Evans, M.B.E.,

suggests some precautions that will ensure

HYGIENE

in the school grounds

THE term hygiene has several applications. There is the hygiene of the person, of the home, of the immediate external environment, of the municipality, of the country or state and of the world as a whole. The promotion of the science of hygiene in all these aspects can result in a general improvement in the health, not only of individuals and families, but also of nations. Longer expectation of life and the conquest of many major killing, infectious diseases through advances in medicine and hygiene, are resulting in a great increase in the world's population. This in its turn, provides us with a new set of problems to solve.

Sites, Playgrounds and Playing Fields

The environment of a school must, nowadays, include its playground—paved with tarmac and laid out for suitable games—and also its fields, where the national games requiring a grass surface are played. Physical education is regarded, rightly, in these modern times, as a major factor in the building up and maintenance of physical and mental health. Lucky is the school which has adequate playing grounds, particularly when these surround its very walls.

The extent of the school site itself should at least conform with the official standards of the Ministry of Education for new schools. These range from half an acre for a "one class primary school" to three and three-quarter acres for a "four-form entry secondary school." Playgrounds, where this is possible, should be adequate in size and shape to allow marking out for the usual games played on hard surfaces. The same applies, but in lesser degree, to the dimensions of the playing fields, so that the maximum number of games pitches can be laid out in the minimum space.

For a new school accommodating upwards of six classes of young children, the playground area required would be 110 ft. by 60 ft. For a school of upwards of 12 classes, two areas measuring 160 ft. by 100 ft. and 110 ft. by 60 ft. would be needed. For older children in the secondary type of schools, the area should cover a total of 16,000 square feet for a one- or two-form entry, and two such areas for three- and four-form entries. Playing fields range in the Ministry's scales from half an acre for 50 smaller children, to as much as seven and a half acres for a two-form entry secondary school—with an extra three acres for every additional form entry. These scales are set out in detail in "The Standards for School Premises Regulations, 1951" (H.M. Stationery Office 6d.) mentioned in a previous article.

Many existing schools, however, will not be fortunate enough to have playing fields or, indeed, playgrounds in accordance with these scales. It may, indeed, be difficult, owing to competition for land required in building and agriculture, for schools to expand their playing fields. Nevertheless, this should be done wherever possible, and will show a decisive return in the well-being of the pupils. It may be found possible for country schools to have part-year use of land otherwise used by a farmer for grazing. Heath and common lands often have good open spaces for impromptu romps and games, and in these environments there will also be many opportunities for the study of natural history and art.

However, those schools fortunate enough to be able to enjoy "a wind on the heath" should not do so without first ascertaining in whom the rights of the heathland are vested, and whether such jaunts are permissible.

Country Sanitation at Playing Fields

Specific points which are important when considering the hygiene of the school environment, which are placed some distance from the school are sanitary installations and shelters. These are most desirable, especially

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urinals for boys. Out in the country such arrangements can be simple—even primitive—in character. However, when planning installations in these circumstances, the advice of the health inspector of the rural authority should be sought.

There are such things as "land augers" available to-day, by which vertical holes measuring about 14 in. in diameter with depths up to perhaps 14 ft., can be bored in *suitable* ground. Such "bored holes," where these are permitted by the local sanitary authority, make excellent "cess-pits" for latrines and urinals, and in average ground they are self-draining. An ample seat and rough shelter over one of these bored holes make, in the country, a perfectly satisfactory latrine. The system is already used widely in camps, planters' houses and such places, where there is no sewerage system. Alternatively, simple soakage pits, measuring 8 ft. long, 2 ft. wide and 4 ft. deep, filled with broken brick, stone or clinker to within a few inches of the ground surface and surrounded with vertical, tarred, corrugated iron sheets, make excellent urinals in country conditions.

Cess-pits and Septic Tanks

As mentioned in a previous article, where a country house is used as a boarding (or even day) school, it is necessary to ascertain whether the existing type of sewage disposal system will be sufficient. It may have been designed for use by a considerably smaller household. In such houses, not connected to a public sewer, there may be a collecting cess-pit which has to be emptied periodically by a contractor or by the local authority. Or it may be a small septic tank with clinker aeration beds for the liquids overflowing from the septic (or liquifying tank). When a system like the latter is overworked the nuisance is very soon realised by the smells which arise. Here again, the advice of the local sanitary authority should be sought.

In the case of sealed cess-pits, it sometimes is possible, in country areas, to tap the cess-pit near the top and decant away the liquid (leaving solids behind), and to "farm" this overflow on to furrows on the land around. This, in certain conditions, can be done very successfully with no danger to health and with much good to the land itself. Sets of trenches or furrows can be used alternately. The sanitary officer can advise if the conditions permit such "farming" or "irrigation" of liquid cess-pit effluents. Where this can be done, the emptying of the cess-pit itself is made necessary only at much longer intervals.

Another pertinent problem is the disposal of organic refuse which, if not dealt with suitably, will, in hot weather, breed the *musca domestica*—the common house-fly—in its millions. This is the fly which can, on its feet and in its crop, carry from exposed excreta infectious material which may contaminate food. Thus the prevention of fly breeding in the environment is a precaution that is essential. Then comes the protection of food from flies, the destruction of adult flies and the prevention (by good sanitation), of the access of flies to any excreta. Horse manure especially, is prone to breed the house-fly. If the school has stables, then the regular—indeed, daily—removal of this manure either on to the land, or packed into hard, earth-covered mounds, or even its burning, is desirable. There may be a local collection scheme for ordinary house refuse serving the school, but if not, then the refuse should be burned or buried daily—or possibly packed into a tight heap kept covered with layers of soil, so that it can decay into a useful compost. Food waste and swill are usually in local demand for the feeding of poultry and pigs, but the removal of these every day is necessary.

Dealing with food refuse in this way will go a long way to meet the menace of rat infestation. Without access to food, rats cannot of course live. The proper disposal of food wastes, joined with a direct attack upon any rats which may be present, should have the effect of ridding the premises of these pests—especially if the structure of the building is such or can be altered to prevent the access of rats. Here the pest officer of the local sanitary authority can give help and advice.

During Vacation

It is very necessary for the caretaker to attend to the sanitary system during vacation. He should make a round of the closets once a week, especially in summer, to flush them, so that the water-seals in the pans are not lowered by evaporation—a condition which otherwise enables sewer gases from the drains to escape into the buildings. Then in the long summer holidays in particular, he should take off the manhole covers of the drains and wash down the half drain at the bottom of each with a strong jet of water from a hose or fire hydrant. Thus the drains from the school to the sewer, septic tanks or cess-pit can be kept clear of solids during a period of quiet, and the occurrence of smells and obstructions due to this cause will be prevented. A clean school deserves a clean environment: all these things go together.

Sweets Derationed

A School Doctor offers some words of wisdom on sweet eating that will not appeal to our "Billy Bunters" . . .

THE modern generation of schoolboys cannot remember sweets *ad lib.* To-day most schools wisely limit pocket money. The modern child is conservative, and as he has been used to six ounces a week he will probably not want more. Certainly almost every child takes up his sweet ration. Sweets vary enormously in their consistency, the purest is sugar candy, using "purest," assuming that sweet means sugar. Toffee contains a certain amount of fat and chocolate contains even more. Home-made toffee is often made to the prescription of one ounce of butter, eight ounces of sugar and five ounces of golden syrup, whereas chocolate contains 45 per cent cane sugar and 55 per cent cocoa powder, of which approximately a quarter is fat.

We have to go back to pre-war days to see how often boys were ill through overeating. I went through my cases in 1938, where diarrhœa and vomiting had been the principal symptoms, and I can only find three where dietetic errors seem to have been the cause of the trouble. In 1933 a boy ate a quarter of a pound of chocolate fudge; next day he had diarrhœa twice and vomited once. He had the slightest trace of acetone (indicating acidosis) in his urine the next day when his temperature was 99 deg. A friend of this boy also ate a quarter of a pound of chocolate fudge, vomited violently three times that evening and had a loose stool. He had loose stools for two subsequent days. The third case was a boy who ate three-quarters of a pound of dates, after which he vomited and had diarrhœa. I think it would be fair to say that if boys are well fed they will not gourmandise on sweets and chocolates. There are usually no facilities for eating in large quantities before dinner, which is still the principal meal in most schools. If they eat too many chocolates or chocolate bars, which are a favourite sweetmeat, acidosis may come back as in the old days.

I think we may have made the young think that as sweets were rationed they were a necessity, whereas they were the only luxury which was rationed. We should do better to encourage children to eat fruit. And let us not forget what East said to Tom Brown: "So you come along down to Sally Harrowell's; that's our School-house tuck-shop. She bakes such stunning murphies, we'll have a penn'orth each for tea. Come along, or they'll all be gone."

. . . but tuck shop proprietors (and patrons) will find this advice from a dietitian more cheering

THE Ministry of Food has just reversed the quotations from Hamlet. It's now: "Sweets to the strong. All hail." And why not? So far as the nutritionist can see there's no reason at all—or very little reason. To-day our sugar ration accounts for about 127 calories a day, and the total sugar consumed per head per day (in cakes, biscuits, jams, pickles, sauces and soft drinks) is about 415, or roughly 12 per cent of the daily calorie intake of a healthy schoolboy at late prep. school or early public school age. Is it likely to make much difference to the value of his diet if he adds, which is unlikely, another 100 calories, so raising the percentage of calories obtained from sugar to 16 per cent of the day's total? By no means if the school diet is at all reasonable. It is quite possible to arrange a diet in which all the necessary protective foods and all the bodybuilding foods represent only 30 per cent of the calories necessary. Let us put it at 50 per cent, to be on the safe side. That means that 50 per cent of the calories can come from any source whatever, even if (as in sugar) there are no proteins, mineral elements or vitamins in it. We have a very large margin between 50 per cent and 16 per cent. All this fear of crowding out the protective and body-

(Continued on next page)

Mrs. Elizabeth Midgley, visiting the Catering Exhibition, gives a bouquet to manufacturers who are promoting

GOOD DESIGN

in the canteen kitchen

EARLY in February the Hotel and Catering Exhibition, 1953, was staged in the City Hall, Manchester. Melting snow made the trek a somewhat chilly pilgrimage, but the wealth of equipment of all kinds was sufficient reward. My particular interest was to enquire of and observe the degree of real development in design of those articles of equipment which most households are finding necessary in these days of labour worries.

There is an admirable adaptability about much modern equipment, often presented in economical units which can be added to existing machinery with little trouble. The Green's Patent Heatflow Cooker is a most satisfying piece of equipment. During war years it was a great asset to any kitchen because of its dependability. It burns solid fuel—anthracite beans are the most desirable, but good-quality coke is quite satisfactory. It is automatically stoked by gravity feed from a hopper, and there is no lighting of fires because the cooker is brought into immediate use by switching on a small induced-draught fan.

The new model is much more handsome than the one made during war years and several new features have been introduced. The cooker consists of two very large ovens and a large hotplate, heated by one fire. The "new" type is finished in vitreous enamel with chromium-plated fitments and it is generously insulated. The oven heats are separately controlled by two calibrated dampers and these dampers are now operated by foot pedals. The ovens are fitted with full complement of grid and solid shelves and a dial thermometer.

The induced draught fan is very small and has a current consumption equal to that of an 80-watt lamp. The cost per annum in electricity, for running the fan eight hours daily, would not exceed £1. The fuel consumption is also moderate. No elaborate chimney is required, the waste gases being discharged through a four-inch asbestos pipe which is provided.

The cost is £285 plus installation and includes an extra motor and two fuel-charging drums, poker-riddler, etc. The floor space required is 6 ft. 7 in. by 2 ft. 9 in., and additional equipment, hot closet, boiler for hot water, Bain Marie, can be combined, or multiples of the cooker itself grouped, if space allows or numbers demand such additional equipment. The suppliers have presented a hard-working easy-to-run cooker and any particulars of it can be obtained from them—Rowe Brothers and Co., Ltd.

This firm was also introducing amongst other machinery a gas-heated three-in-one kitchen unit—useful especially where space is restricted. It is 4 ft. 3 in. high by 3 ft. by 1 ft. 8 in., and has a steaming oven, a fish frying unit with a fish storage chamber, which is fitted above with a direct drain back into pan, and there is a hot cupboard below with double sliding doors. Hire purchase terms are available and the model in stove enamel finish is £89—in vitreous enamel £97. All parts of steamer and fryer are removable for cleaning. This is a most useful model for small catering departments.

Recognising just how expensive it is to keep cups unchipped and tumblers whole, the Hallway Hygienic Dishwasher appears to be the perfect answer to the pantry workers who never know why accidents occur. Messrs. Leonard Hall and Co., 11-12 Pollen Street, London, W.1, make many

Continued from previous page

building foods by sugar seems to me unfounded.

But, of course, if I had my way school tuckshops should open at break only for the sale of fruit and milk drinks, and for sweets only after the midday meal! Why? To obviate, so far as possible, the natural impulse of the young to regard sweets as the *summum bonum* and to neglect protective and bodybuilding foods.

types of dishwasher. The biggest of these costs £148, a middle-sized one £125, and one which washes glasses and cups only is priced at £97 10s. No detergents or wiping are necessary and the crockery only comes in contact with the brushes (self-cleansing) and rubber rollers. The dishwasher can be accommodated on a draining board at the side of a sink, providing a 5 amp. plug can be installed adjacent to the hot water supply and drainage. The demonstration test was speedy and efficient, and showed that one person can perform the operation of cleansing and stacking the tumblers and cups in a very short period of time. There must be considerable saving of time, cleansing materials, tea-towels, water and breakages.

Before deserting the machinery section of the exhibition—and there were some excellent (and expensive alas!) types of equipment—I joined a fascinated crowd watching the "Peck-Mix" mincer and mixer devour hundredweights of vegetables, etc., and then release a stream of minced and shredded food through an opening near the base of the machine. Farmers, poultry keepers and pig clubs are assured of an economical means of adding to the present rations by using this machine, which in five to twelve minutes can reduce 1 cwt. mixed whole vegetables to readily consumable pieces. Schools which run their own farms and feed a variety of livestock probably have their own methods of coping with regulations governing the preparation of food, but this machine promises to mix and mince pressure-cooked meat, fish and meal, at the rate of 1 cwt. in approximately three minutes.

I next surveyed the many food stands advertising well known products, and at the Weetabix, Ltd., counters some delightful ways of using this food were shown. Their booklet of recipes for savoury and sweet dishes is excellent. The firm is very proud of this all-British product and its reputation. Not all institutions may be aware of the Weetabix Catering Pack which contains two gross of biscuits, and the minimum "carriage paid" order of three catering packs saves 10s. 6d. in cost against the same quantity (864 biscuits) purchased in the usual way.

The Nestlé Company Ltd., had a most colourful stand, and their delicious canapes and aspic jelly moulds were a delight to the eye. Messrs. J. A. Hyman, Ltd., have succeeded in bottling anything and everything which can tempt the appetite. Their delicious savouries are well-known and one feels that with a few of their unexpected ideas in these in the larder any occasion may gain distinction.

(Continued on page 123)

and a new contributor, Doreen Davies, selects some ideas shown in the Packaging Exhibition that encourage

WELL-PACKED FOOD

THE recent spate of exhibitions illustrates the rapid progress being made by manufacturers. At the Packaging Exhibition held in London the latest developments in packaging of all sorts of wares, including foods, were displayed. New products giving better protection, improved appearances and more hygenic wrapping indicated the earnest desire on the part of manufacturers to raise standards, but it is questionable whether the consumers' knowledge advances so rapidly.

It is much more difficult to induce a traditionally conservative minded public to disregard the long-tried methods and materials than it is for a research department to devise an economical improvement in production. The standard of handling food in this country is often much criticised—we have become used to a Hobson's choice—but the time has arrived when we no longer need accept uncomplainingly anything which is unsatisfactory.

These are some of the items which I consider are worthy of anticipation:

Refrigerator Bags.—Various types of pliable plastic food bags have been on the market for some time. Imperial Chemical Industries are now selling polythene, pulled into tough transparent sheets and long lengths of sturdy tubes for various purposes including packing machine parts, fruit salads, watch-parts, peas and chickens. This material is ideal for wrapping foods to be deep frozen and is very useful, too, for short period refrigeration. It is moisture-proof, does not become brittle at low temperature and is non-toxic and tasteless. Its flexibility makes it excellent for packing the awkward shapes of chicken and other poultry.

Polythene film can be easily heat-sealed to give a weld which is as strong as the material itself. Commercially, this sealing is done on hand or automatic machines, but an efficient moisture-proof and airtight pack can be made in a few minutes with the ordinary domestic iron. A piece of brown paper should be placed between the polythene and the iron to prevent the plastic material from melting and sticking to the iron. When the brown paper begins to scorch, the sealing operation is completed.

Polythene flat and tubular film is not available by the yard in retail shops, but bags made from it are on sale in some of the

(Continued on page 123)

Centralising food stores

The Bursar finds a new way to help reduce unnecessary items in school expenditure

WE are a scattered community, our Senior, Middle and Junior Schools lying upon the three points of a triangle whose sides would make a round trip of about three miles. For many years our food supplies have been ordered in triplicate, the wholesaler and others delivering direct to these three schools. In the case of the Middle School there are four separate kitchens to be supplied, and a main food store was set up there to do this. I considered this system a good one to administer; cutting out the business of delivery and packing-up from one central store, and having all goods invoiced separately to each school made costing that much easier. It is true I have had no efficient means of delivery and should have had to rely upon an outside transport department who rarely kept to the hour or even the day. It would not have paid to have had our own vehicle.

I am now closing down the stores at the Middle and Junior Schools and shall deliver round in future from one main store in our Senior School. This is a measure of economy and a tightening of control. It may seem strange to alter one's opinion about the best administrative methods, but I will give the reasons in some detail, for it is by thinking about these difficult days that ideas come and are picked up by others. I hope to deal in the next few months with the details of economies we are practising.

We are all short of cash at the bank; or is that too sweeping a statement? "Short of" does not necessarily mean there is little or nothing there, but rather one could always do with more! Whenever we take stock we seem to have some six hundred pounds always tied up in food stocks. This figure can be reduced by centralisation, and I reckon I can bring that £600 down to £300 and so help my cash position a bit. Although the figure is very, very much smaller, I am bringing into one store all dry goods and cleaning materials.

There will at the same time be these economies. There is a charge made by wholesalers for splitting bulk, that is to say weighing-up 28 lb. out of a hundredweight sack. There is also a charge for breaking cases, sending a dozen bottles out of a three-dozen case. There is a better rate for half a ton than on 1 cwt., or five cases compared with a lesser quantity. And so it is obvious we shall do a little better ordering in to one school for the whole of its catering. I don't overlook the fact that in an endeavour to obtain the best rate one sends more than necessary, say, of baked beans to one school store, and because they have such a stack it is a temptation for those on the spot doing the catering to use more than they would have done, to open tins rather than work at a made-up dish.

Before going further I must agree with the readers who feel strongly that such centralisation should have been carried out years ago. I plead circumstances altered our case until now.

There is the practical economy brought about by greater control. The main store is under the eye of the resident domestic bursar on the premises where her main duties lie, and the school's very best storeman, naturally, has the job. I was going to say "cutest" rather than very best, but rather than apply such a wide-of-the-mark word to a worthy individual I will emphasise my next point by an example of his acuteness. "The way to economise in food," he says, "is to tell 'em you haven't got it. They'll accept that and you can give it to them next week. If you give it to them the first time they'll use it and put it on their lists next time." It is true, too, that a store will have visitors who, looking round the shelves, see something they had forgotten and wouldn't otherwise have bothered about.

However good the folks in charge may be a store does accumulate too much of one thing or another. Very often the Junior School may be holding a line the children have decided they don't like any more, and the tins may go rusty before it is discovered

the Seniors could use it up with relish, or may even have been buying that very line. There will be a saving of losses of this sort, we trust, and the quicker turnover will keep cereals in prime condition and perhaps make it more difficult for mice to find permanent quarters.

As I've mentioned, we have had three stores with supplies going in direct, meaning three sets of invoices, three "inwards books" to be kept, three systems for the return of empties, three lots of invoice checking and posting and, the most tedious task of all, three stock books to price and extend for audit. What a saving it is going to be in many ways not at once obvious, with only one bit of extra work involved. To keep the food accounts separate all issues will have to be transferred from the Senior School account, and internal operation meaning weekly pricing and extension by the office. To reduce this work to a minimum I have introduced an order book for each kitchen which is the usual duplicate book with numbered pages with the addition of a left-hand margin and right-hand cash columns. Cooks will fill in the centre of the page with their demands and send the book in to the storekeeper weekly. He will fill in the quantity supplied on the left, tear out the top copy and send it in to the office to become an official transfer. The book, with its carbon copy, goes back to its kitchen with the goods.

A good storeman must be provided with a good stock book, and a good one can be quite simple without any fancy columns to keep filled just for the sake of column filling. I wonder whether we give ourselves unnecessary work, to digress for a moment. An assistant whose job was to check the extension and addition of all invoices, questioned the necessity of this considerable job after failing to find any errors really amounting to anything over a period of a few months. We have it done because we are expected to do it by the auditor, and it has been the custom, and mistakes are made by the best of firms.

To get back to our stock book . . . My storeman is also a handyman/cleaner as well as a tower of strength. If you have one who is only a storeman and spends his time keeping an elaborate daily stock book, I consider it an expensive luxury these days. I know it sounds like heresy, but he will obviously be a trusted servant to be put on such a job, so why not trust him and keep him busy saving you money in other directions?

I am wondering whether to insist upon an "inwards book." When the invoice comes with the goods and is duly signed nothing more is needed, yet many firms send delivery notes only and the invoice under separate cover, and why shouldn't the signed delivery note be all the evidence required? There are a few rascally firms who send neither invoice nor delivery note with the goods. Shall we keep a book going just for them? A buyer's market now and so they must mend their ways or we must trade where they are more businesslike. Therefore all we need a stock-book for is to take stock in once a term, and to cost out once a year for audit purposes. Head it as you see below and a page will last one year. Group the goods into their trade headings, such as "Cereals," "Canned Meats," "Dried Fruits," and so on, leaving a few lines between sections for additions to the range during the course of the year.

I am assuming audit falls after a year ending on August 31, and have headed my three principal divisions accordingly. "No.," of course, stands for quantity, and I have put a special column for "Denomination"—forgive the abbreviation sounding a little like an honourable commercial degree—for it is so often missed out when anyone without experience takes stock. When costing this omission can be exasperating and the cause of some guesswork. Let us know then whether it is 6 "dozen," "only," "gallons," "pounds," "ounces" or "hundredweights."

By the way, under "Item" train your stock-taker to write down accurate descriptions, that is to say the size of "can," whether it is a gallon, or a 2½, or a 1 ft. tall, or a ½ or a ¼ club, and so on. The different proprietary lines are legion and the audit stock figure must be as correct as humanly possible. This figure can turn a loss into a profit and the other way about, if you get my meaning. The Bursar has some responsibility when he signs the stock certificates, and they must always be at strict cost though the cost has risen again since purchase, and should it have fallen it is the sane, sure practice to put it in at the lower figure ruling at the time.

STOCK BOOK

	Dec. 31		April 30		Aug. 31					
Item	No.	D Nom.	No.	D Nom.	No.	D Nom.	Cost Price	£	s.	d

continuing People and Events

Twenty-two-year-old Councillor G. Oakes, of Widnes, Lancashire, has been appointed a governor of his old school, the Wade Deacon Grammar School for Boys. According to the *Daily Express*, the Headmaster opposed the appointment at a meeting of the Education Committee on the grounds of the Councillor's "immaturity." "We can't have an Old Boy back as a school governor," the Headmaster is reported as saying, "it would put him in authority over his former masters."

* * *

Cheltenham Ladies' College celebrated their centenary at the beginning of the Lent Term. The Principal, Miss Margaret Popham, fourth Principal in the School's history, retires this year. In the College's first precarious years, parents were advised that fees were six to twenty guineas a year. To-day—£249. Forty per cent of the pupils go on to university—considered to be the highest proportion of any girls' Public School.

* * *

In 1947 the Middlesex Education authorities had 626 applications for places at four Public Schools; last year the number dropped to 347. It is not known how many pupils at Public Schools are being assisted or maintained out of public funds. In 1947-48 about 2,100 were aided by councils—since the war six or seven thousand might be a good guess, but only a guess, at the total.

Eton and Harrow have taken boys from Hertfordshire and Middlesex. Charterhouse linked with Nottinghamshire and West Ham; Winchester with Hampshire and Croydon; Rodean with the Isle of White; Shrewsbury with Derbyshire and Staffordshire; Oundle with Burton-on-Trent and the Isle of Ely.

The L.C.C., whose boarding-school budget runs to £100,000 a year, tends to avoid placing pupils in the better-known schools. Woolverstone Hall, near Ipswich, is their Eton.

* * *

Mr. C. L. Mellowes, M.A., has been appointed Director of Education by the Northumberland County Council in succession to Mr. H. M. Spink, M.C., M.A., B.Sc.

* * *

After careful consideration, the Hertfordshire Education Committee have decided that the most appropriate and economical form of commemorating the Coronation would be to provide extra books for the school libraries in the County. A special book-plate is to be designed for all books bought for this purpose. Each secondary school will be given a grant of £50 for book purchases. The Coventry Education Committee, also, have decided to give books to the junior and secondary school children as mementoes.

* * *

Miss Horsbrugh, Minister of Education, answering a question in the House of Commons recently, stated that she estimated that the adjustment of the food subsidies in last year's Budget has increased the cost of food in the school dinner by 0.85d.

Alderman Mrs. N. Smith, Chairman of the Birmingham Education Committee, recently stated that the actual cost of a school meal in Birmingham at present was 1s. 5d., of which the food accounted for 8½d.

* * *

The National Book League's journal, *Books*, announces details of their 1953 Children's Book Competition. All boys and girls under the age of 17 on February 1, 1953, are invited to enter competitions in illustration and/or composition. Book prizes will be given and the best entries will be exhibited at a date to be announced. The closing date for the competitions is April 1. Further details may be obtained from the League at 7 Albemarle Street, London, W.1.

* * *

Notes from the Services give full details of ways in which it is possible to obtain commissions in the Royal Navy, the Army and the Royal Air Force. They are produced periodically by The Defence Services' Campaigns Manager, Central Office of Information, Baker Street, W.1. Complete printing plates of the Notes, to fit the page of any school magazine, are supplied free of cost on application.

* * *

Mr. Henry Brook, in Parliament the other day, wanted to know why boys and girls at independent schools in the London area were not included in the arrangements for enabling schoolchildren to watch the Coronation procession from the Victoria Embankment. The Minister of Education, Miss Horsbrugh, replied that the selection of children under these arrangements was a matter for the local authorities of Greater London. She did not consider it practicable to ask them to make special provision for independent schools out of the limited allocation of places available to them because of the great variety of schools.

planning and maintaining
Lawn Tennis Courts

by W. E. Shewell-Cooper, M.B.E.

MOST schools like to have one or more tennis courts and though the hard court can be played on during the winter, there is nothing to equal a good lawn for teaching young people how to play. Also, it is considerably cheaper to lay down. Two-and-a-half years ago when the Horticultural Training Centre moved from Kent to Thaxted in Essex, we had the job of levelling a piece of ground and sowing the seed. We found that for this purpose the Ramdozer, which can easily be fitted in front of the Ransome's M.G.5 (the Baby Caterpillar tractor) was very useful.

Once the initial levelling had been done by a machine, it was a simple matter to finish off the work by hand, so as to produce a fine tilth. It is important to provide adequate room and to leave about 10 or 12 feet on each side of the court with a run back of 18 to 20 feet. After levelling it pays to leave the land alone for two or three months because some settling usually takes place (one or two barrow loads of soil had to be introduced at Thaxted for this purpose). Furthermore it is a good thing to allow the initial weeds to grow, and if these are hoed in two or three times during the spring and summer, the land is in a far cleaner condition to sow in the autumn.

A good mixture to purchase for the purpose of sowing consists of three parts New Zealand Brown Top, three parts Chewing's Fescue and four parts Creeping Red Fescue. This may be supplied by a seedsman already "prepared" for sowing. Beware of the very cheap grass mixtures which usually contain 6 per cent of ordinary Perennial Rye Grass which inevitably gives trouble later on. It is true that the Rye Grass may die out under the influence of regular mowing, but if this happens bare patches occur and weeds soon get in. As to the amount of seed to be used, we really need about two ounces to the square yard. This makes it rather expensive, and some schools managed with sowing only an ounce to the square yard. But at the latter rate you have to be patient, for it takes some time before the lawn is ready for use. The greater the rate of application, the less chance there is of an inroad of weeds.

If there is any choice about position, choose one which is N.N.W. to S.S.E. It helps, of course, if there is plenty of sunlight: therefore you want the court well away from the trees. On the other hand a background of greenery is good, and restful to the eye. One has to put up the wire netting surrounds as a rule and it is quite useful if the bottom layer of netting can be rolled up or removed in some way, so that it is possible to cut all the grass in the winter time. For this reason some schools have used fish netting for the ends and this is then rolled up at the end of the summer and stored away carefully.

The problem of tennis lawn upkeep is bound up with the fact that the grass must be covered regularly, and this means that there is a certain amount of over-consolidation each year. It helps greatly if the tennis lawn can be spiked in the autumn. Plunging the fork into the lawn perpendicularly at two-foot intervals all over the lawn helps with the aeration. With the heavier soils it may be necessary each autumn; with the lighter land once every three years. The worms have got to be kept down because their casts make the turf so slippery and early in the summer they can usually be eliminated by the use of Mowrah Meal, which is put on at four ounces to the square yard. A good flooding is then given and the worms which will later come to the surface in hundreds can easily be swept up.

Weeds must be kept down for there is nothing that upsets a good player more than the ball skittering off owing to landing on a plantain. Generally speaking, Methoxone can be said to be the most active of weed killers and it can be bought to-day under a proprietary name. This weed eradicator works best when there is a fairly high temperature and when both grass and weeds are actually growing. Apply it therefore in the spring or early summer—though the death of the weeds will be gradual, they will finally disappear. A pint of the liquid diluted

(Continued on page 122)

HOW TO START A PHOTOGRAPHIC CLUB

We start here a new series of articles designed to help the enthusiast to plan and organise a school club, and will deal with a number of subjects

ORGANISING a photographic club soon resolved itself, I found, into wheedling a room suitable for a dark room out of the headmaster. Even when use of a room was granted, there were several difficulties to overcome. The main one was that the room was occupied for another purpose during the day so that our equipment had to be locked safely away and the black-out and special electric light fittings had to be at least unobtrusive.

Ideally, we were after a room with a sink and running hot and cold water, a small window that could be effectively blacked-out, and central heating to keep the room at an even temperature of about 65° F. As it was, we accepted a smallish room without any of these facilities—and without a murmur! It did, however, have a good-sized cupboard that could be locked up, and a power point.

The first job to be tackled was blacking-out the window. We toyed with the idea of a wooden frame to fit the window and covered with black American cloth which one of the club members said he could probably get for us, but finding somewhere to put this out of harm's way during the day was difficult. I was also dubious about the American cloth because it is said, like the vapour of turpentine and peroxide, to cause fog on negatives. Probably the danger was academic only; anyway, we compromised with a blind made out of a rubberised material (obtained cheaply as off-cuts from a blind-making factory). This rolls up on a wooden roller fixed above the window. There is no spring, the blind being operated by two strings, one attached to a slat fixed to the end of the blind and the other, for pulling the blind up, being wound around the roller.

By itself, the blind let in light at the sides, so permission was obtained to screw a narrow wooden frame on to the window frame. To this were fixed strips of plywood projecting for about two inches over the edges of the blind towards the middle of the window. Some objection was raised to our painting this a nice non-reflecting black as it was "unartistic"; so instead it was stained Jacobean oak.

The door needed a certain amount of attention, a felt strip being tacked along the bottom, which stopped a draught as well as a gleam of light. I have found in the past that attention to details such as this is essential if crisp prints with clear whites are to be obtained.

For a work bench a suitable table was offered, and accepted.

The largest and most expensive item of equipment was, of course, the enlarger. Unfortunately, there is no such thing as a completely universal enlarger. One suitable for small negatives cannot be used for large ones, or one for large negatives for miniature sizes. Generally speaking, there are three main groups, those for negatives up to $2\frac{1}{2}$ in. by $1\frac{5}{8}$ in. (that is, for miniature up to vest pocket size), those for negatives from V.P. to the popular $2\frac{1}{4}$ by $3\frac{1}{2}$, and those for larger negatives. We chose a vertical model of the second size (which enlarges up to 15 by 12), as nearly all club members had cameras in this group. Since then we have made a vertical enlarger for miniature work out of a plywood box with holes cut in the sides to save weight and covered with an opaque material—but that is another story.

The table-cum-work-bench was a little shaky when several enthusiasts were using it, so a special folding shelf was made for the enlarger; this stows neatly away when the room is in general use.

Developing and fixing dishes chosen were fairly large, the developing dishes being the proper porcelain articles and the fixing dishes large enamelled dishes normally supplied for culinary purposes and quite cheap in price. One club member presented us with a rectangular all-glass fish tank which is admirable for a fixer when a large number of prints have to be fixed. For washing prints, ordinary enamel bowls have proved satisfactory.

The source of water is unfortunately at the end of the corridor, and there is no hot tap. What we do on club night is to fill the bowls with water and leave them in the dark room with an electric fire on for half an hour or so before we start. Chemicals that are required are mixed with warm water heated on a small stove and left in the room

also. By the time members are ready to start, the room is warm, and water and chemicals are at room temperature.

The dark-room lamp is home made, the safety glass having been purchased. It is used in conjunction with a general safe illuminant. Another useful lamp is a 100-watt opal bulb under an opaque enamel shade hanging from an adjustable arrangement so that it can be pulled down to within about 18 inches of the top of the table. It is used for exposing contact prints. However, a much more satisfactory arrangement is in course of construction. This is a light-tight box in which contact prints can be exposed, which does not interfere with anyone using the enlarger.

Other equipment, added from time to time, includes a dark-room timer (actually it is a kitchen "pinger"), developing tanks, squeegees, glazing plates, and a print trimmer.

One master here is a naturalist in his spare time and takes groups into the country at all times of the year. This activity has become closely associated with those of the photographic club, whose naturalist photographers now form the most active section of the club. The section has constructed a vertical stand to which a double-extension plate camera has been attached for close-up work. In conjunction with this, a special specimen stand is used. It comprises a box with a glass top on which the specimen is placed. Inside the box a card may be fixed at 45 deg., the card being black, white, mottled, or whatever background is required. A light directed on the specimen from above to one side throws a shadow on one side of the background out of the field of the camera. The results to date have been impressive.

The section is at present experimenting with sprays to reduce reflection, and the effects of contrasting colours and stains. Ammonium chloride is sprayed on the specimen—a snail shell, for example—by blowing through a tube which has been swelled to a bulb in the middle. The bulb contains a few crystals of sal ammoniac and is held over a Bunsen flame.

I have not mentioned the general club activities, for dark-room work is, of course, only a part of them. We have a classroom for meetings, where there are talks by the occasional expert we manage to capture, discussions, and free-for-all criticisms of each other's work. There has been one very successful exhibition, and during the summer outings are arranged to places of photogenic beauty. On special school occasions, such as sports day, we now have an "official photographer"—or, more accurately, several of them—and a display of pictures is held afterwards.

It has been a lot of work, but the effort was worth while; the club is the most popular in the school.

Staggered Holidays

The Bursar considers a new move to alter the school holidays

THE South-Western Development Association have started something. Or have they? A campaign to alter school holidays and so spread out the seaside rush in August has long been advocated by various interested parties. It has rumbled on, occasionally becoming more acute, rather like a grumbling appendix. The Bristol reformers (it is at Bristol they met) point out that holiday accommodation is overtaxed because we push half the population into it every July and August. It is school examinations, they cry, that prevent holidays being spread out over a longer period. If the examinations were held before Christmas the children could do their studies in the winter and parents could take early summer holidays.

The Association proposes, therefore, a rearrangement of the Academic Year so that there would be four holiday periods: March 12th-26th, June 5th-July 3rd, September 11th-October 10th, and December 19th-January 2nd. It proposes to approach all M.P.s, local authorities, holiday resorts, transport and teachers' organisations, trade unions and hotel keepers asking support to end what they term a ridiculous state of affairs.

No doubt the proposals will receive support. They always do. The fact remains that nothing is ever done. This to some will seem curious, and everyone who feels keenly about it will blame the schools. The schools, if attacked on the subject, will blame the universities. This they may do with reason, for what nearly all reformers—and in the educational world they abound—fail to realise is that reform in matters of education must come from the top and not from the bottom. If that is true of all that affects the curriculum, it is surely true also of holiday dates. Schools cannot change examination dates. Only the universities can do this, and I should say myself that they are very unlikely to do so.

continuing Planning and Maintaining Lawn Tennis Courts

with a gallon of water is sufficient for 50 square yards.

Though you may get rid of the plantains, i.e., buttercup, dandelion and starweed, it is not easy to control clover. One of the best ways of getting rid of it is to use an old knife and cut through the turf where this is seen. If done regularly at the end of each season, there will be very little trouble from the clover patch, and nothing is worse for providing a slippery surface.

Very often the base lines of the tennis court are very badly worn by the end of the season, but as schools break up early there is not much difficulty in sowing new seed about the beginning of September and so renovating the court in such a way that it is fit to play on the following year. The simplest way of sowing the seed is to puncture the soil *in situ* and having made dozens of holes to broadcast the seed at two ounces to the square yard and then sift a little good soil over the top, the John Innes Seed Compost being ideal for the purpose.

In cases where schools loan their tennis courts to boys' clubs or such outside organisations and so the play goes on to nearly the end of September, it is necessary to carry out all the repair by means of re-turfing. This is more expensive but there is no other way out. Of course, it is possible to have a turf nursery in another part of the grounds, but few schools can afford the extra work needed for this purpose. The regular spiking will do wonders and I have known parts of the lawn that seemed to be entirely killed, to be covered in a few weeks after play has ended, because the right amount of aeration has been given.

There are other jobs to be carried out, such as the efficient Springbok raking which disturbs the moss and gets rid of it. This operation will also discourage clover and will remove the dead grass and other creeping roots. Grasses of course, like other plants, like being fed, and in the very early spring of each season it is a good thing to make an application of a special type of fish manure which is prepared for tennis lawn treatment. This is organic in origin and contains the right amount of nitrogen as well as small quantities of phosphates and potash.

continuing Two Answers to Sir William Hamilton Fyfe

the pupils lining up eagerly for our schools "come from families that have never sent boys to the Public Schools before." Our clients, these days, are "not all Old Boys."

Frankly — isn't most of the uneasiness about the future coming more from a distrust of the source of supply than from any fear of that supply drying up? We can get the pupils; what so many are not sure about is whether they like what they are getting.

And if some of us can't be thankful for full fee-paying sons of men who are obviously "not Old Boys" — what are we going to make of any other class of boy? The so-called crisis, the uneasiness, I regret to say, arises out of snobbery. We don't like the particular accent in which money talks to-day. Naturally, we should prefer to see, in the lists of new boys, names long known to the school. We even prefer the post-dated cheques of our old class of parent to the only too readily produced wads of notes—clean but of doubtful origin—of the newer kind of parent, only too eager for a Public School to take his boy.

Every school would like to take just the boys it wants—and not have to worry about the cost. But that isn't democracy. That's pinching the cream.

May I suggest there is less talk of crisis and that we, who believe in the Public Schools, show a little more confidence in ourselves and get on with what has always been our job—educating that class of the community that is able and ready to pay the fees? As someone has said: "If money talks—it's our job to see that it talks with an educated accent." The number of people wanting a Public School education for their sons and daughters doesn't seem to have greatly declined — so why the alarm and despondency? It's a pity, perhaps, that old familiar faces are missing from this new class. But, in a new age, there are new tasks and our independence particularly fits us for undertaking them.

As, I believe, the writer of your "Diary in Blue Pencil" once pointed out, the Victorian Public Schools were faced with a similar "crisis." A new middle class — cotton, not county—began to clamour for places. At the prospect, there was no talk of surrender rather than acceptance. The situation was faced — and accepted. The prosperity of the very schools in trepidation to-day was founded upon that breadth of outlook, self-confidence and, yes, lack of snobbery.

cont. Elizabeth Midgley's report on the Manchester

Catering Exhibiton

The *Salon Culinaire*, with its displays of equipment and food preparation competitive models, was a fascinating feature and quite fantastically clever. Mrs. Beeton would have approved and enjoyed the futuristic hotel modelled in white sugar and salt. It soared "vastly" into the sky, and on the flat roof a tiny plane of the future had "landed." There was a mellowed Baronial Hall with rounded towers, built of bread lightly toasted and "rasped" to an incredible smothness and symmetry. A portrait of the Queen (marzipan?) was beautifully presented and had a frame embossed with national flowers and emblems, and birds and beasties of heraldic inspiration and significance. These were modelled on medallions about 2 in. in diameter and decorated the entire frame. All, one supposed, were edible. There were state coaches with outriders, the horses "ridden" by scarlet-trousered crayfish cunningly introduced to a new element! There were baskets of flowers, sprays, bouquets, floral arrangements for "centre-pieces"—everything and anything. A chess board and pieces labelled "Checkmate" was next door to a model Zoo, the animals beautifully formed — and from mutton fat. The refrigerators added their scientific aid to this exhibition not merely as valuable equipment, but as the jewel cases for some of the clever conceptions by these culinary artists. Through the gleaming windows one could see the rainbow trout, lordly salmon, heaped fruit and vegetables, iridescently feathered birds topping game pies—all the delectable dishes imaginable conceived by these master brains of culinary art. Literally hundreds of vary-coloured particles of fruit, fish, vegetable and meats jewelled the moulds and decorated the "cold" preserved dishes. Chefs from famous hotels and students from training colleges were the exhibitors, and the gold and silver cups to be won could not be awarded without much difficulty.

Packaging Display

Doreen Davies continues her report

stores. Owners of refrigerators will find them the answer for preventing food drying and packing things tightly in the cold storage.

Aluminium Foil Cups.—A most attractive packing material moulded into little cup-size tubs with easily fitted lids is one of the newest ideas for packing ice-cream, jams, sweets, cream cheese, frozen foods, nuts, sandwich fillings, etc. They are light for transport, easy for stacking and pretty enough in their brilliant colours to add attractiveness to any food setting.

Some food manufacturers are already using them and, although not primarily designed for domestic or catering use, the manufacturer is not adverse to selling them, when supplies are in full production, for such purposes. These cups would be perfect for children's Coronation party trifles.

Paper Towels.—The infection dangers of the communal towel, the cost of individual towels, allowing for laundry bills, loss and wear, have often been the excuse of minimum standards of ablution in schools, offices, catering establishments, factories and, indeed, in most public buildings. Paper towels have never been popular, even before paper restrictions, because they disintegrated so quickly.

The production now of paper towels, which are really absorbent and which are actually stronger when wet than dry, may be the long-awaited answer. These paper towels are dispensed from a neat, small cabinet which occupies about a foot square wall-space and could be easily fixed in the smallest of toilet rooms. A supply in a kitchen would be a great convenience; the conscientious, tidy cook would find many labour-saving and economical uses for these absorbent hygenic tissues. Give a schoolboy a chance of them and it will not take him long to discover other dozens of uses—cleaning the drawing board and footballers' knees may well be approved!

The first meeting of the organisations responsible for the provision of playing fields and sports facilities was held in February. This was a preliminary consultation on the work in which they hope to co-operate in the future, not only for their own benefit, but in order to ensure the very best planning and treatment in organising playing fields for public and private use throughout the country. The societies concerned are the British Association of Field and Sports Contractors, the Sports Turf Research Institute and the National Playing Fields Association.

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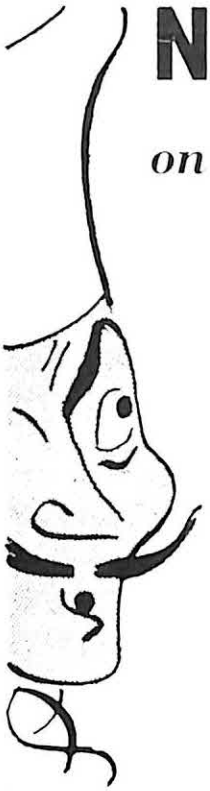

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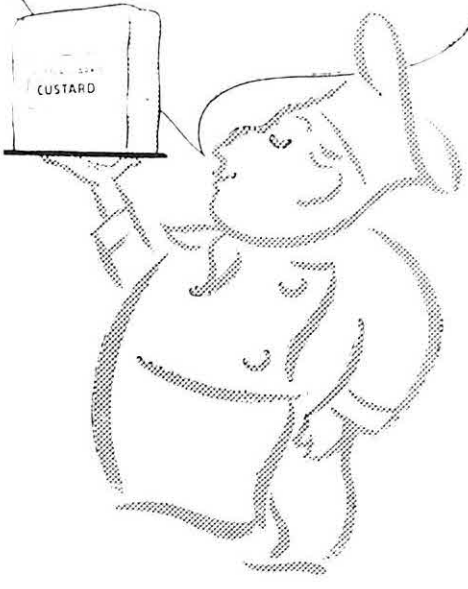

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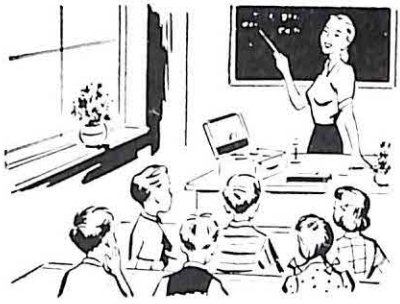

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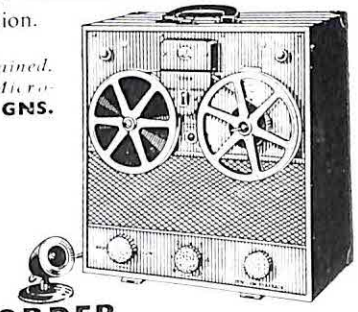

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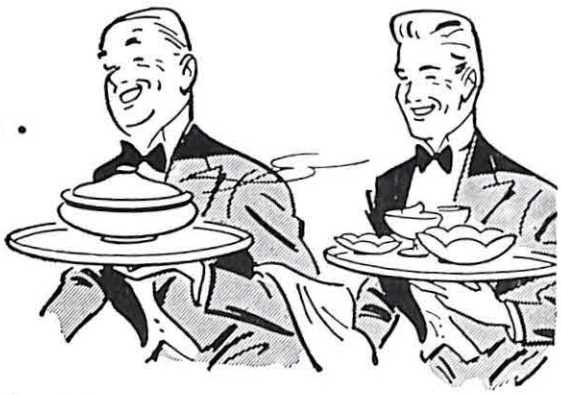

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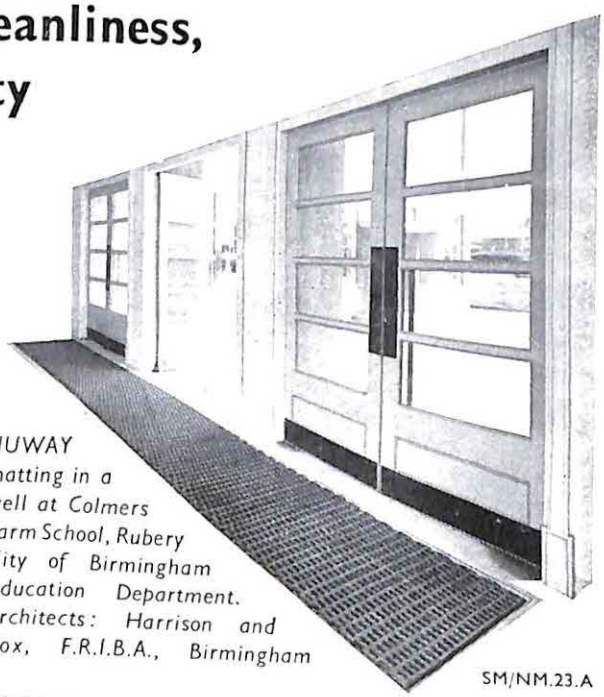

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St. Brandon's Clergy Daughters' School, Clevedon
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Sacred Heart Convent, Dublin
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Bristol Royal Infirmary
Forster Green Hospital, Belfast
Queen Victoria Convalescent Home, Bristol
Rotherham Municipal General Hospital
Townleys Hospital, Nr. Bolton
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School of St. Mary and St. Anne, Abbots Bromley
Stamford Girls' High School
Torbay Hospital, Torquay
The Friends School, Great Ayton
Cardiff Mental Hospital, Cardiff

Wing's Charlton Park, Malmesbury, Wilts
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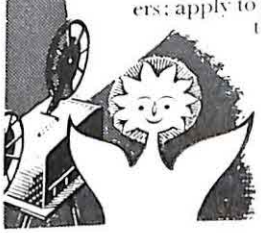

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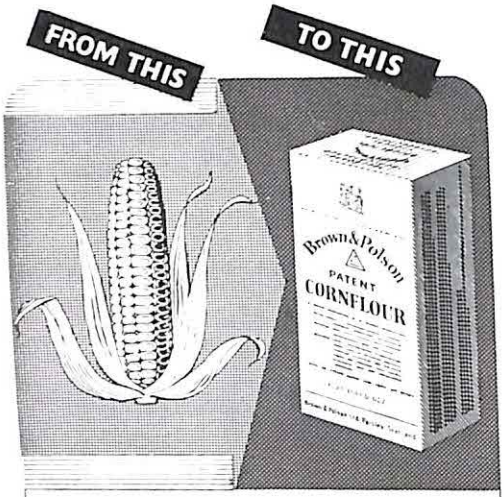

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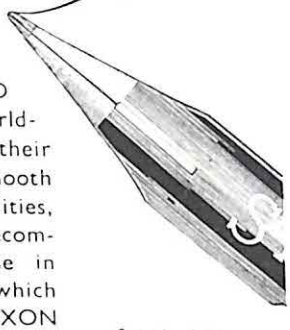

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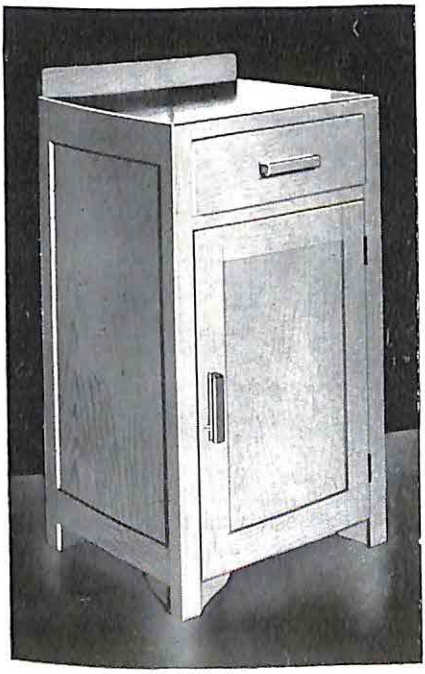

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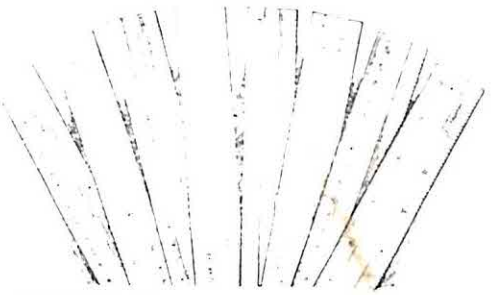

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Pennants 14½ inches long. Can be supplied complete with staffs or with three eyelets for fixing.

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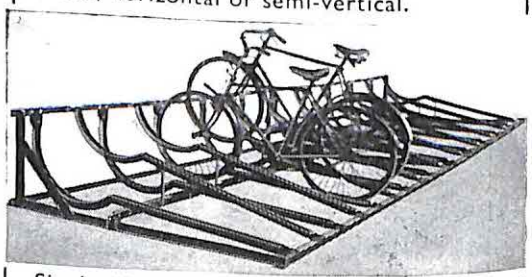

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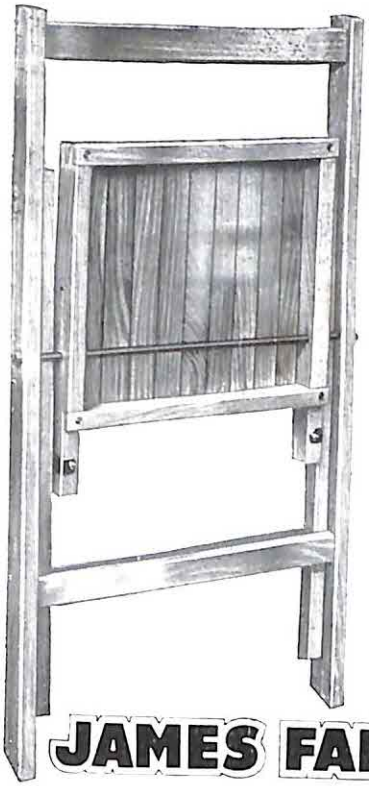

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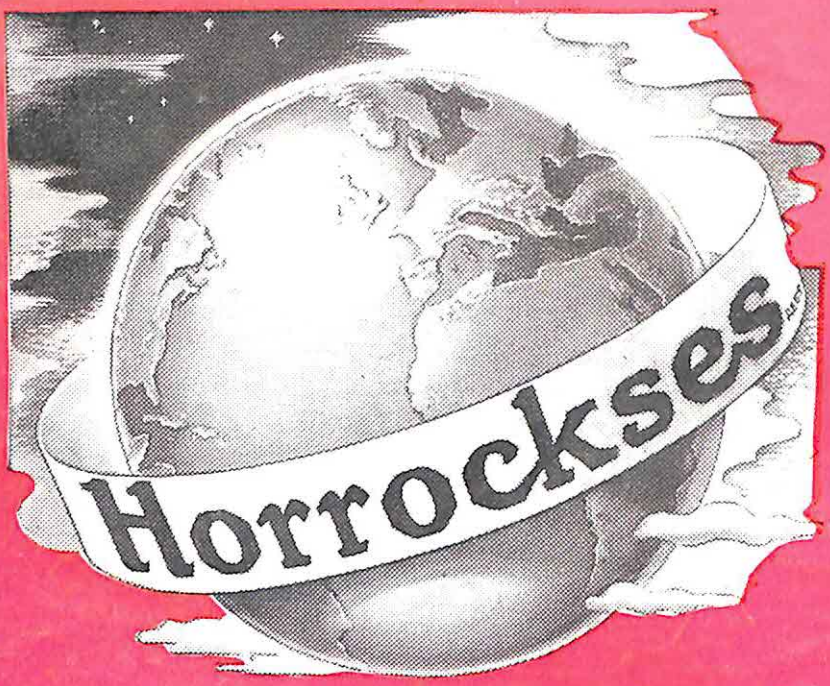

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 4. One Shilling and Sixpence April, 1953

How clean is that floor?

With dozens of youngsters running in and out all day, bringing in mud and dust from playgrounds and streets, it is no wonder that dusty school-room floors present such a problem in school hygiene. And what of the dust you don't see? Dust from clothing, from hair, and droplets expelled from nose and mouth – these are a real danger.

Ordinary dry dusting and sweeping redistributes a good deal of germ-laden dust. Scrubbing with soap and water is good, but scientific treatment including disinfection is better.

The scientific removal and disinfection of dust is only one of the simple and economical measures included in the Izal Service for School Hygiene. Get in touch with Newton Chambers & Company, and arrange for a specialist to call on you and discuss how the Izal service can be planned to fit your special needs.

THE IZAL SERVICE FOR SCHOOL HYGIENE

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ESTABLISHED 1874

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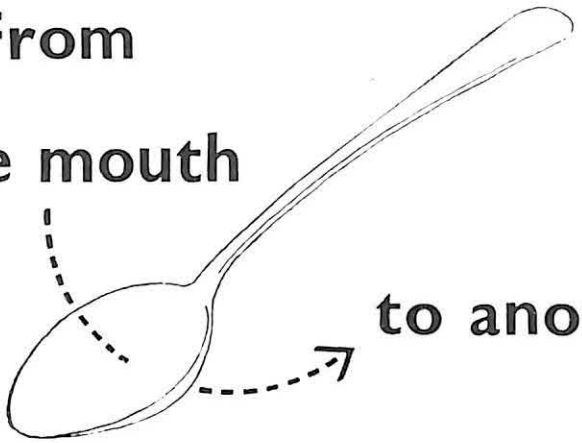
From one mouth



to another

and only washing-up

in between! Unless this washing-up kills germs,

there's a serious danger

of infections spreading from school meals.

Don't run the risk! Follow the

DEOSAN ROUTINE

in the school kitchen. It provides a positive safeguard

with no "extra work", at little extra cost.

The Routine is simple, easy for workers to follow. Workers like it and take to it readily. Health officers praise it. We will gladly send full details to interested enquirers.

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One of the Milton Group of Companies.

The new Catering Pack

CONTAINS THE SAME QUANTITY OF WEETABIX AS 12 ORDINARY 2-DOZEN PACKETS AND

costs less..

The saving effected by eliminating 12 separate packing processes has made it possible to offer 2 gross of Weetabix in the Catering Pack, for considerably less than the same quantity in the ordinary large size packets, and—a really worthwhile economy—carriage is paid on every order of 3 or more Catering Packs.

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MORE THAN A BREAKFAST FOOD

ASK YOUR USUAL SUPPLIER FOR THE CATERING PACK

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For 26 years this scheme arranged by us has coped successfully with the problem of remitting fees when pupils are absent. Most I.A.P.S. and Public Schools numbering over 1,500 have been using this scheme for many years. It is now an institution and up to date claims amounting to over £1,500,000 have been paid.

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The advantages to the Parent are:-

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2. LOWER COST AND MORE SECURITY
   The total cost of a child's education is less, even though, should the parent die, no further premiums are needed and the payment of fees is guaranteed.
3. INCOME TAX RELIEF
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THE SINGLE PAYMENT PLAN

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The advantages of this Plan are:-

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2. SECURITY
   The termly payments are of guaranteed amounts, and cannot be affected by capital depreciation.

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For many years now, Johnson's have made a special study of just the problems your floors have to face. They have produced a range of waxes to suit your type of flooring, whether of wood, lino, rubber, plastic tile, asphalt, terrazzo, cement, cork or composition. Johnson's Traffic Waxes are hard-wearing, long-lasting, and require the minimum buffing to produce a brilliant shine. And because they are easily and swiftly applied, they save time and labour costs. If you should have any particular problem of floor maintenance, please do not hesitate to write to the Maintenance Products Division—they'll gladly give you expert advice.

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8th July, 1952.

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For rubber, plastic tile, lino and asphalt flooring. Shines as it dries — needs no rubbing or polishing.

TRAFFIC WAX
Paste
For extra protection in heavy traffic lanes on wood, cork, lino, etc.

TRAFFIC WAX
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For all wood, lino, cork, etc. Cleans as it polishes to a protective hard-wearing surface.

FREE!

This new leaflet tells you all about the Johnson way to clean and maintain your floors. A copy will be sent free on request.

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Because Zalpon is a cream, it will not trickle through your fingers. It gives a wonderfully soft lather, even in the hardest water — and just see how quickly it washes away the grime!

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What does Crockery Cost You Every Year?

★ *BY WHAT MEANS CAN BREAKAGES BE MINIMISED?*

How much of your profits are dissipated by continual breakages of crockery and to what extent could that wastage be reduced or averted?

★ *APPEAL TO STAFF USELESS?*

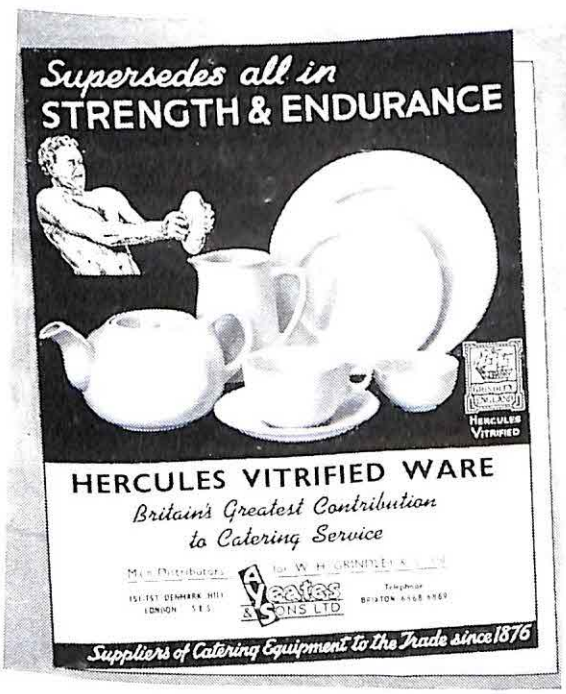
Rough usage by the catering staff is probably a major cause of the trouble but the majority of catering managers say that that is a difficult condition to deal with.

★ *IF SO, WHAT IS THE REMEDY?*

The remedy must be the use of crockery which is refined in appearance and must stand up to exceptionally drastic service conditions.

★ *THE PRE-WAR WAY*

In the past, the best type of crockery you could choose for tough service was HERCULES high grade Vitrified Ware made by Grindley's.



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Now, that same fine, strong, good looking crockery is again available in a modern series of catering designs made and perfected by Grindley for maximum durability. The body material of HERCULES is itself vitrified and, together with the hard bright glaze, is 100% hygienic and highly resistant to rough usage.

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the ink made specially by Parker for school and home use

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he hasn't heard about 'KILROCK'

the *most* efficient and effective Scale Solvent available to-day. 'KILROCK' removes every particle of scale from boilers, calorifiers, pipe circuits, etc., *without* mess or extensive dismantling. Non-injurious to metals, 'KILROCK' ensures *scale-free* waterways of plant thus producing fuel and maintenance economies.

Recommended by Boiler Manufacturers.

For removing scale in Kitchen Utensils, i.e., Kettles, Tea Urns, etc., 'KILROCK-K' is recommended.

★ Contractors to H.M. Government and Local Authorities.

'KILROCK'
The Most Efficient Scale Solvent

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13 No. 4 April, 1953

CONTENTS

Epileptic Children—*Dr. R. E. Smith describes the three types of attacks that children may suffer from and the courses these take* 149

American Sunshine School for Handicapped Children 152

"Drill" to Physical Education—*Michael Llewellyn reviews 50 years of development in P.T.* 155

If the School is Going Camping—*organisers will find this list of the equipment needed a useful guide* 156

Tightening up on Security—*a Police Inspector gives advice on precautions against theft and pilfering* 162

Is the School Prospectus Really Necessary?—*C. L. Berry considers this question from two points of view—the State and the Independent school* 164

Centralised Cooking Saves Money but—*The Bursar's Charivari discusses a drastic but effective catering economy* . . . 167

Taking Sides about Bread—*New Ministry of Food rules will force schools to choose between white bread or 80 per cent extraction: V. H. Mottram weighs up the case for each side* 169

Planning the Kitchen for Staff Efficiency—*by Mrs. Elizabeth Midgley* 171

The Editor and Management are always pleased to offer the hospitality of their columns to readers for contributions to their editorial or correspondence columns, but it must be understood that they do not necessarily hold themselves responsible for, or agree with, the opinions expressed in such contributions. Contributions should be addressed to The Editor, SCHOOL & COLLEGE MANAGEMENT, 18-20 York Buildings, Adelphi, W.C.2.

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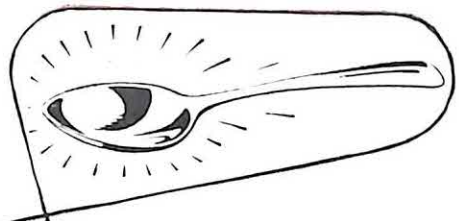
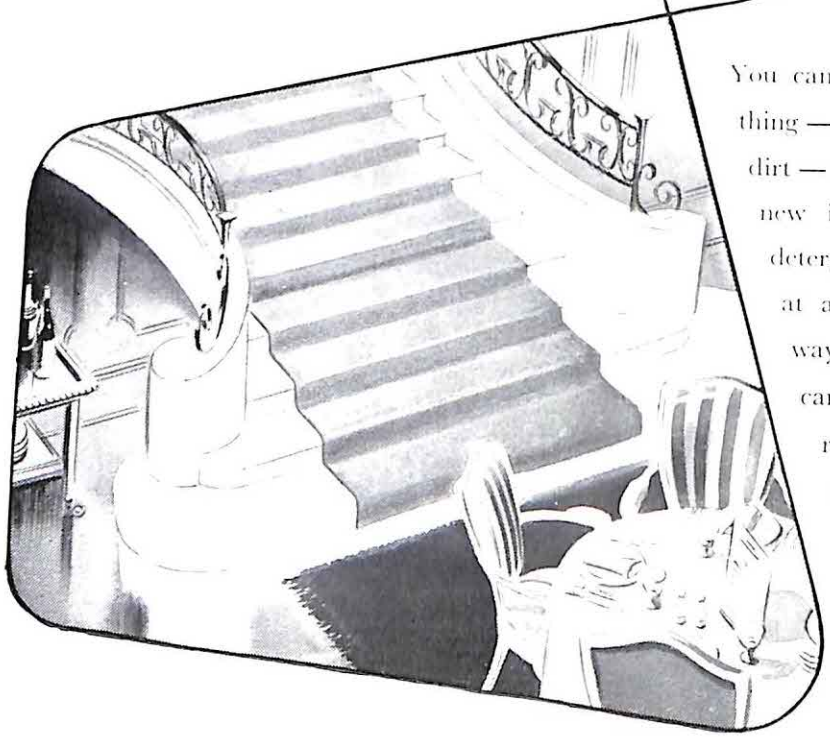
from a spoon... to a staircase!





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EPILEPTIC CHILDREN

A certain percentage of children will develop epilepsy during school life. It must affect their education. It is therefore important that the damage to health and mental powers of this disease should be known. Dr. R. E. Smith describes the various forms that attacks may take, and their treatment.

THE scientific study of epilepsy is very profitable. Until recently this disease has carried a stigma and often patients have suffered because of superstitions, half-truths and prejudices. This is not the only disease in this category, and when I was recently reading the life of John Hunter by Dr. Roodhouse Gloyne I found he had said very much the same things about John Hunter's experiment of infecting himself with syphilis —he "lifted the whole unsavoury subject out of the mire and quackery and made it a serious scientific study." Epilepsy likewise illustrates: "Better the devil you know than the devil you don't." I hardly like using this metaphor for a disease which 500 years ago was the subject of Rubens's painting of St. Ignatius of Loyola exorcising evil spirits from epileptics, a belief that died about 200 years ago.

Types of epilepsy

Many people like to call epilepsy by another name, like seizure or fits or perhaps the falling sickness, but this serves no useful purpose, although it must be admitted that when the word "epilepsy" is used, the parents and the patient must be given a full explanation and as accurate a forecast of the outlook as is possible, and it is difficult to know how best to do it. Perhaps I can illustrate this by an example.

A boy had his first epileptic fit in the middle of the night; it ran a normal course, in that when the convulsive stage was over he settled down and slept, and was quite normal next day. The housemaster, a most conscientious man, rang up the boy's home to tell his father about it, and the telephone was answered by the mother, who was told about the incident. This caused great alarm, and on reflection it would have been much better to have written to the father, a distinguished lawyer, who would have understood the problem much better.

This boy also illustrates extremely well how valuable lay observations are. He was sleeping in his dormitory and woke up other boys by making a noise and he began to have convulsive movements. Forceful restraint, even by people who were in the House Rugger XV, served no useful purpose. When I arrived to see him, the boy was being held down by his friends, but his own violent movements were stronger than theirs. When, however, he was just wrapped in a blanket and no opposition made, the convulsive movements stopped almost at once.

Many epileptics are never seen in an attack by a doctor, who therefore has to rely on relatives' observations, and from their observations one recognises three types of attack, which are sometimes called grand mal, petit mal and psychic seizure.

Grand mal

This is always associated with convulsions and in more than half the cases is preceded by an "aura," which is of course the Latin word for "wind," and is the breeze before the storm. The aura is an ill-defined state of sensation often described as feeling queer, dizzy or numb, but some have more local symptoms like a tingling in the arm or leg or a feeling of sickness. Occasionally an aura is long enough to give the patient warning, but very often this is not so.

It is followed by the convulsion, where there is complete loss of consciousness and more or less at the same time a stiffening of

all the muscles. It is because of the stiffening of the muscles that the patient bites his tongue and goes blue, because his respiratory muscles are in spasm and he is not breathing, but this quickly passes away as his movements become jerky. This condition may go on for a short time—which, however, often seems a long one to the observing mother or father.

Usually the attacks are single; they may recur and, if there is a series of attacks, may call for special treatment.

After the attack the patient usually sleeps, sometimes has a headache, and occasionally is obstreperous.

Petit mal

The "petit" really refers to the attacks which are much less fearful, but the condition comes on with greater frequency and is often a bigger problem than grand mal, and certainly calls for equally active treatment. There is usually no aura and the symptoms may be completely overlooked by the child or the parents. At first there is just a loss or impairment of consciousness which lasts only a few seconds and comes on abruptly. If the attacks occur at meals he may drop what he has got in his hand. Later they may get more severe and the patient may fall.

A boy who, while convalescing from an infectious disease, had a rather more severe attack of petit mal than he had had before, without any preliminary warning fell on the floor with a thud. In the room was another boy who took no notice of this, and when the matron came in and found the first boy in this condition she asked the other boy why he had not done anything about it. "Oh!" he said. "I am sorry, but I thought some books had fallen off the table."

This illustrates two points: first, that other boys are not very affected by their colleagues' complaints; and secondly, that this boy had had minor attacks of epilepsy for some years, but it was the first one where there was serious loss of consciousness. Often children who have petit mal, especially if untreated, eventually develop grand mal.

Grand mal and petit mal have definite differences; sufferers from grand mal usually have infrequent attacks, always accompanied by convulsions and loss of consciousness. In petit mal the attacks are much more frequent, often several a day, and loss of consciousness may be so trivial as to pass unnoticed. From the educational point of view there is this great difference: petit mal usually becomes more prominent at the age of adolescence, but it does not result in any mental impairment. This will be discussed in some detail later.

Psychic seizures

Psychic seizures are rare — probably not more than 3 per cent of all attacks — and vary so much that it is difficult to describe them. The patient does not usually lose consciousness but does not remember where he is, does purposeless acts, and if forcibly restrained may become violent. They may be associated with convulsive movements.

These three types of attack are grouped together as "idiopathic" epilepsy. The first task of the physician seeing a patient with epilepsy is to decide whether the patient comes into this group or whether his epilepsy may be secondary to some other trouble, commonest of which is probably post-traumatic epilepsy, but other causes are cerebral tumours, infections of the brain and birth injuries. This type of epilepsy is much more liable to cause what is known as Jacksonian epilepsy after Dr. Hughlings Jackson, Physician to the London Hospital, who described what he called the march of the fit, which usually starts with a movement in one particular set of muscles and spreads in an orderly fashion through groups of muscles as the impulse spreads out along the brain cells which supply them. These are arranged in a certain area of the brain in what is called the motor cortex.

It is of topical interest that these observations of Dr. Hughlings Jackson have been verified and extended by Dr. W. Penfield, the Canadian who was awarded the Order of Merit in the New Year's Honours, and he has provided a diagram to show the motor sequence. If the impulse starts in the part of the brain supplying the thumb and spreads upwards, it will go to the index, middle, ring and little fingers, into the hand, wrist, elbow, shoulder, trunk, hip, knee, ankle and toes, and as these impulses usually spread both ways as it goes upwards it will affect the neck, brow, eyelid and eyeball, face, lips, vocalisation, jaw, tongue, swallowing, salivation and mastication. This is a little involved, but it does illustrate, once more, how important observation is, including lay observation.

But, needless to say, the physician and neurologist seeing a patient with epilepsy are usually helped to a right diagnosis by his physical examination, and if necessary other accessory examinations.

The onset of epilepsy

In three-quarters of all cases the first attack is before the age of 20, almost half begin during the second decade of life, while

only 10 per cent develop it after the age of 30; the liability is high during the first three years. There is a peak at the age of 7, corresponding to the second dentition, and a further peak at 14, 15 or 16, i.e., the age of puberty; in girls this peak occurs a year or two earlier, as indeed puberty usually does. In 3,000 cases the ratio of females to males was 13 : 12.

Perhaps I should say at this stage that I have quoted somewhat extensively from Dr. W. G. Lennox's book, "Science and Seizures," in which he tries to throw a new light on epilepsy and migraine—so much so that he would like to call epilepsy "the hopeful disorder" instead of such names as it had in the past like "the sacred disease," which was used by the ancient Greeks, "the demon disease," used by Martin Luther, and "the comitial disease," which reflected the habit of dissolving the Comitia at Rome if a member had a convulsion. Dr. Lennox pays tribute in his book to Dr. Hans Berger, a German psychiatrist who demonstrated that the electrical pulsations of the brain can be picked up from the scalp, amplified a million times, and recorded. This was the beginning of what is now called electro-encephalography, and it is this technical test which has lately stimulated the expert interest in epilepsy.

Many of Dr. Lennox's statistics are compiled from questioning ordinary hospital patients. Of 1,869 patients questioned, 60 per cent had only one type of the three mentioned (grand and petit mal and psychic seizures), 40 per cent had more than one, and 2.5 per cent had all three; 51 per cent had only grand mal, 8 per cent only petit mal, and 1 per cent only psychic seizures. He realises there may be reasons why these figures are not correct, for it is quite possible that people with psychic seizures go undiagnosed. Petit mal is predominantly a symptom of childhood and adolescence and tends to die out as maturity is reached, and for this reason the person whose seizures continue to be only petit mal carries a good prognosis.

It must now be mentioned that the patients from whom Dr. Lennox's information was obtained (these include other doctors' patients whom he was dealing with) are an unselected group. Of 1,567 patients who had grand mal, a quarter had fewer than 5 attacks a year, half had fewer than 15, three-quarters had fewer than 50, 2.2 per cent had more than 1,000 a year, and 0.4 per cent more than 5,000 and one patient even 16,000. Whether this is any consolation to people who are having a few attacks of grand mal a year is very doubtful. Petit mal, of course, is much more frequent, but approximately a quarter of 657 patients had fewer than 20 attacks a year.

It is important to note that age does have a significant influence on the number of attacks, and this applies particularly to petit mal, where, as age increases, the outlook is better; and this even applies to grand mal. The hope that a patient will outgrow the worst of his seizures is justified, although not always attained.

When the brain is impaired

From what has been said it is obvious that a certain number of children will develop epilepsy during school life, and it is important to know what their outlook is, both as regards mental powers and the danger to life.

Mental impairment does not necessarily or usually follow epileptic attacks, although, of course, there may be mental deterioration, but from the school point of view these patients will probably never get to an ordinary school because mental deterioration probably reveals itself prior to entry. At Rugby, where there were, on an average, 600 boys, we had an epileptic turn up about once every other year. They were just above the average in intelligence among their contemporaries, and as the education standard is high this really means that they had a high intelligence quotient. All these patients were treated, some with marked success, some not quite so successfully, but fortunately they were all able to finish their education at Rugby. The worst, in the sense that he had more attacks which were not controlled by treatment prescribed by an expert neurologist, was indeed mentally the best, and we were very pleased indeed when he got an Open Exhibition to Oxford. So were his parents, for two reasons: first, because he had got the Exhibition; and secondly, because they felt that the school had put up with a lot and they could then take him away at Christmas and he could spend till October in travelling abroad. He got equally kind toleration from the authorities at the University, who certainly took the line that they would not debar anybody because of a physical disability if he could benefit from going there.

Nevertheless it is wise to realise that some children are mentally impaired, and one should realise that the mental impairment may indicate a congenital or acquired defect of the brain and this will cause epilepsy; in other words, that the two conditions are caused by a more fundamental defect. It is, of course, these children who give epilepsy the bad name. Then there

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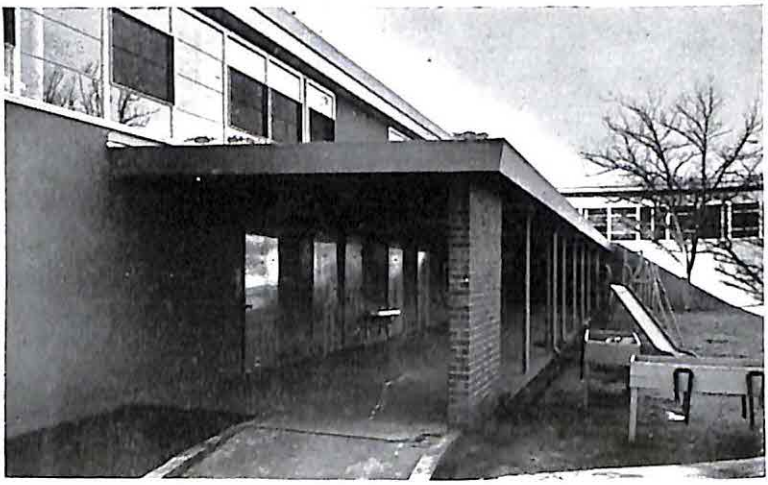
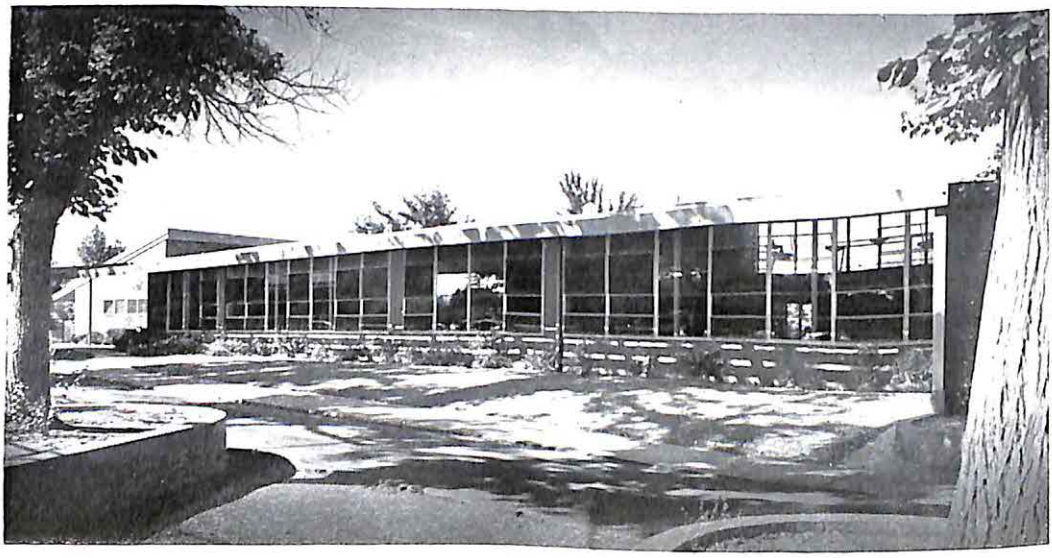
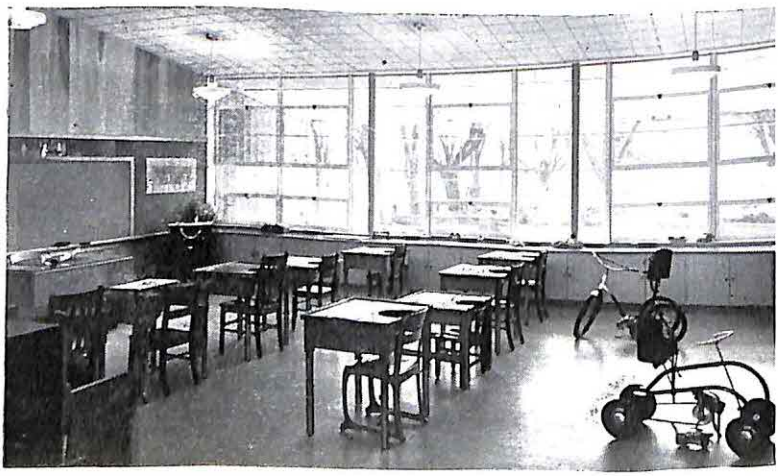
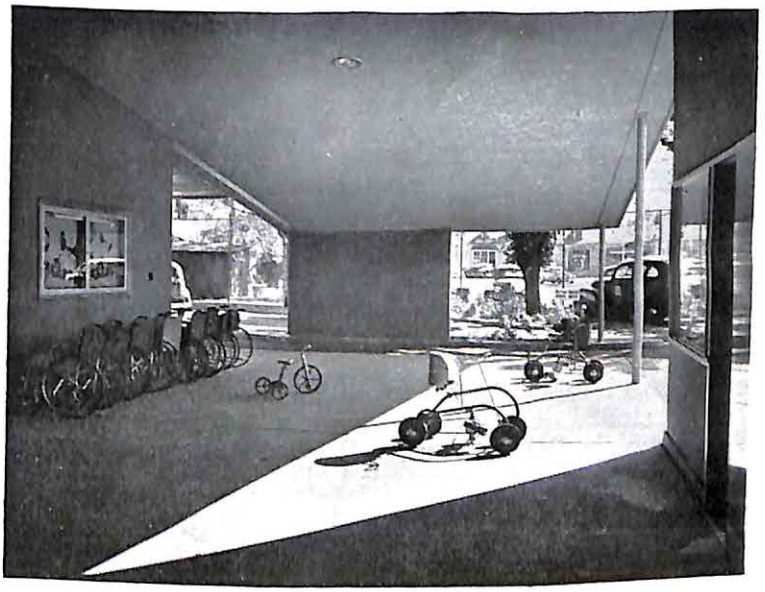






An American Sunshine School



for handicapped children

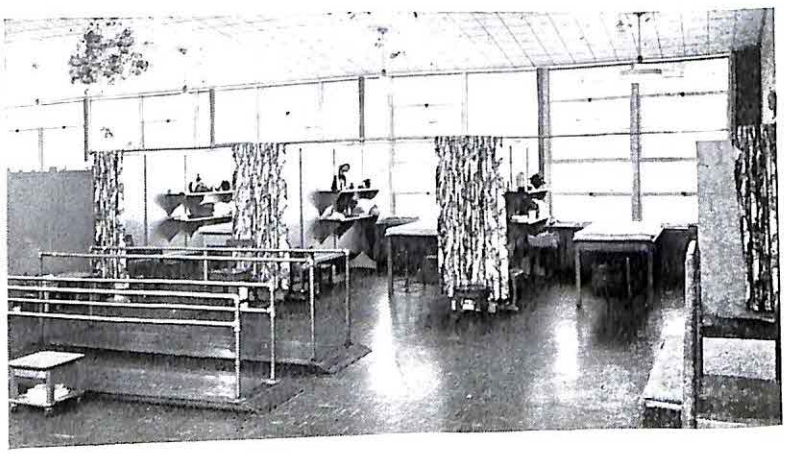
(Continued on next page)

THE well-known Californian architects, Horn and Mortland, have recently designed a unique school building at Fresno, California, for cerebral palsied children. This entirely new type of school was made for 50 pupils (10 for one classroom). Controlling factor for the architects was the physical limitation of the cerebral palsied child. Circulation throughout the school is simple and at grade level with ample widths for mechanical ambulation devices. The 10-pupil classrooms are large enough to accommodate wheel-chairs and other equipments and are convenient for physical and occupational therapy.

Details were planned to eliminate maximum number of physical barriers. A covered waiting and loading area facilitates all-weather transfer of children from cars to wheeled equipments.

Foundations and floors are of reinforced concrete; the framing is of steel beams and columns. Wood stud walls and partitions are used. The exterior finish is of cement plaster, while the interior is finished in gum plywood. Asphalt tile has been used for the floor; the roof is built-up composition with aluminium surface.

A radiant heating system (hot water in wrought iron pipe coils in floors) is employed, thermostatically controlled. Electrical devices include a fire alarm, program clock, public address system, "intercom." telephone. Acoustical tiling has been used on the ceiling. The lighting is artificial: incandescent, concentric ring fixtures are fitted. Daylight is controlled by wood louvres, cantilevered from the roof on the south and west sides.



From "Drill" to Physical Education

Michael Llewelyn sees in this gradual change of name over the last fifty years an important change in attitude to "P.T."

UP to the beginning of this century, apart from the national games and games special to themselves played in some public schools, like the famous Eton Wall Game, physical activity as a part of education was confined to a few secondary or grammar schools, usually of the old foundation type. Some such schools had introduced gymnastics as well, but in the primary schools physical exercises were, in those days, almost entirely absent.

However, in the early years of the twentieth century the public became concerned with "fitness," possibly because of the alarming proportion of rejections, on the grounds of physique, among volunteers for the South African War and also, to the discerning, the darkening clouds over the Continent and Europe, due to the intransigence of the rising Germany. Thus in 1901 the Board of Education consulted War Office experts and issued their *Model Course in Physical Training for use in the Upper Departments of Public Elementary Schools.* Naturally, these exercises were of the "drill" character, modified somewhat later in the syllabus issued in 1904, which was based largely upon the gymnastic movements of the Swedish system of physical training. These exercises were still commonly described as "Swedish Drill."

During the half-century, since the physical condition of school children became a matter for serious official concern, there have been four fairly distinctive phases in the conception of such a subject in the school curriculum. First, as we have seen, it was "Drill," then this loosened up a bit to become "Physical Exercises," then it became "Physical Training" and, by to-day, the modern concept of "Physical Education."

In his report for 1909, the Chief Medical Officer of the Board of Education said:—

"It is while the child is at school, when growth is most active, when habits and character are in process of formation, and when the organism as a whole is plastic and easily moulded, that a right system of physical training, designed to develop mind and body simultaneously, should be commenced."

The idea of what this "right system" should be varied from the standardised movements of pupils more or less anchored to one spot to the principle to-day of much greater freedom of movement, in which the natural urges of youth to run, to climb, to vault, to jump, to play ball and position games, etc., are provided for. From the early stultified formal styles which were drill, we have arrived at what is a sensible combination of free activity and interest with the stabilising and discipline-forming natural exercises.

The Education Act of 1918, as modified by the later one of 1921, encouraged the provision of school and holiday camps, playing fields, gymnasia and even swimming-baths for schools. The conception of what was still usually known as "physical training" was clearly widening, and periods allotted to this "subject" became more enjoyable than the merely formal "exercises" had been, and they were better designed to provide opportunities for the working off, vigorously, of the surplus energies of youth, and to canalise these energies into pleasurable and refreshing activity.

It was in this period that the various schools' athletic associations developed most rapidly. There had been such combined efforts even before the first world war. There was, for example, in South Wales, a very flourishing Schools Rugby League—or

(continued on page 172)

if the school is going camping . . .

A SCHOOL CAMP loses much of its value—and interest—to the boys or girls if it is too luxurious. Half the fun is "roughing it"; much of the value of camping lies in learning to improvise and make the best of what is to hand—or go cold. Nevertheless, behind every school camping expedition there must be a good deal of thought and some hard and intelligent planning.

The weight of this responsibility need not fall upon one person or even upon a few of the elders. In the matter of planning for camp, more than anywhere else in school life, comes an opportunity for the pupils to take a hand in management.

There is everything to be said for beginning to plan early. Now is the time to take school camping equipment out of store, to review and repair what you have, and decide upon further purchases. And much of the work in the carpenter's shop, for example, can be directed towards this purpose. From now on there need not be the rather aimless making of book-ends and lamp-standards by pupils. They themselves can undertake repairs to existing equipment upon which the comfort of all is likely to depend in August and individuals can make things for themselves for their greater comfort—such refinements as tent-pole coat-hangers, "rustic" stands for wash-basins and for shoes. Her Majesty's Stationery Office publication, *Organised Camping* (1s. 3d.) is a first-rate guide and on pages 23 and 24 will be found many excellent ideas for this kind of personal comfort, quite enough to keep any pupil busy in the workshop until the time comes for going to camp.

There is much that can be done in the coming term by way of preparation both in classroom and outside. The geography master can see that large-scale, home-made maps are prepared; in history something can be learnt about the area to which the school is going. Most of these activities are obvious; what may be required are some reminders, and some suggestions, of help to those upon whom will fall the main weight of camp organisation.

Bedding

Bed-making should be practised before children go to camp otherwise the first few mornings and (worse) the first night in camp will be difficult. Normally *four* good-quality wool blankets are sufficient for each camper, but the climate of this country being what it is, it is wise to have a reserve stock taken to camp as well.

Camp-beds are inclined to be cold and extra bedding is required—nearly as much under as over the camper. At least one camp-bed should be taken for use in the first-aid tent.

Other Equipment

No school goes away without a first-aid kit. But it is desirable to have also a first-aid kit for equipment. A sail-maker's needle; hemp or flax thread; cobbler's wax and some old canvas, spare cord, mallets, etc., should be taken.

It has been said of kitchen equipment in camp: "Too much makes work; too little means poor meals." Enamel cooking utensils are not suitable for camp conditions; good-quality iron-ware or aluminium is best.

For food storage a ridge tent, opening at both ends with a fly-sheet, has been found most satisfactory. A large wooden box or chest, stood on its side on pegs, makes a good cupboard for tinned goods. A similar arrangement is suitable for bread. Meat must be kept in the open air; if it is hung from a branch in a muslin bag the bag must be fly-proof and the muslin kept from touching the meat by means of a frame or hoop.

School and College

camp organisers will find this article and lists of equipment for all sizes of camps a useful guide

One of the main problems of quartermastering in camp is the care and storage of partly-used food. Bowls—plenty of them—with muslin covers seem to be the answer to this problem.

All pans, dixies, saucepans, etc., should be kept off the ground, inverted, with lids off, and under cover if possible.

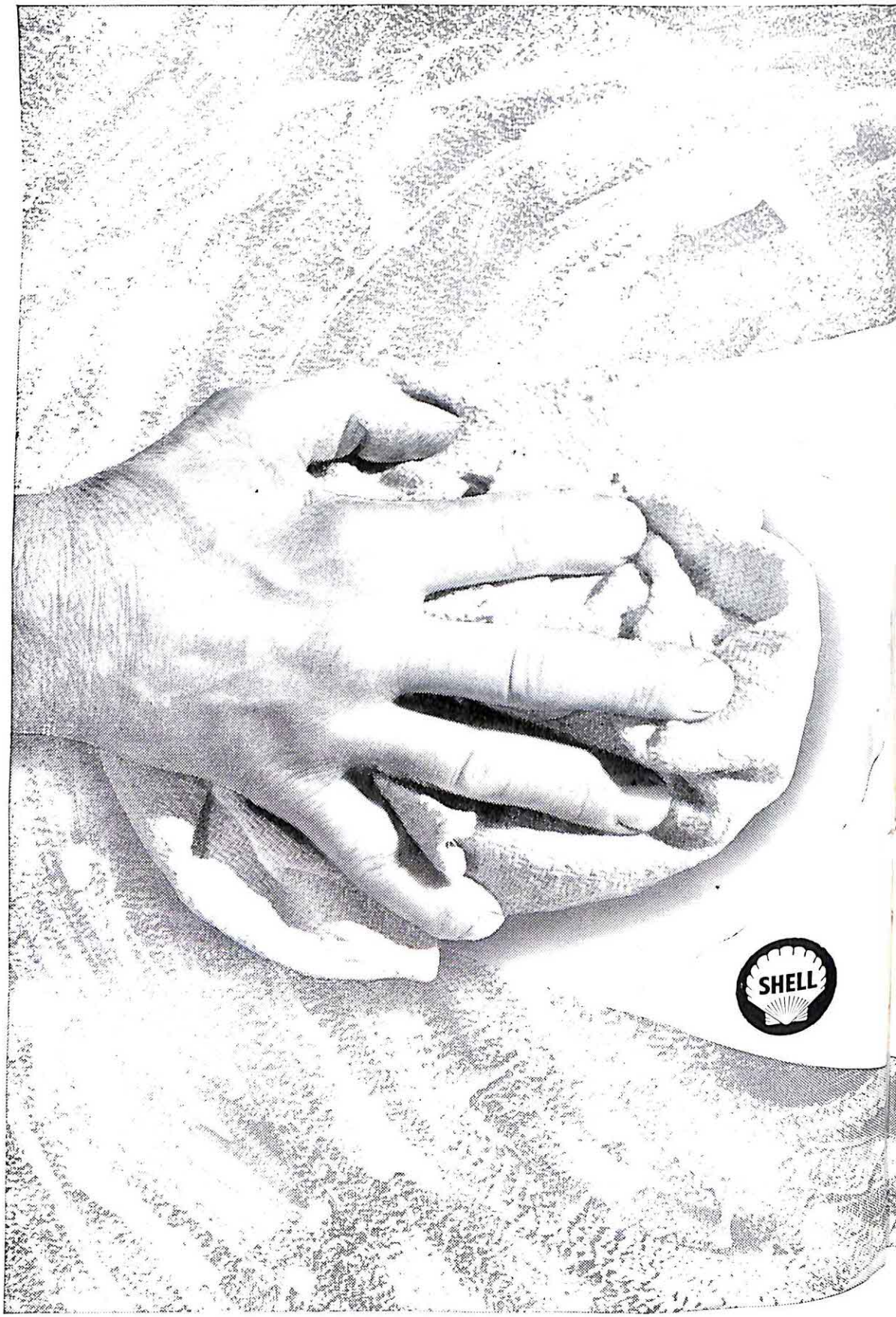
Latrines

"Camp constipation" is a very common condition. It is, in part, caused by a change of air, water and food, but far more by nervousness and bashfulness in the face of unfamiliar and informal circumstances. It seems most desirable that every effort should be made to ensure complete privacy in latrines and, if possible, an unobtrusive approach.

Latrines should be sited 50-75 yards from the camp; the number of compartments should be at least one to every six campers; they should be sited in the shade; covers or containers for toilet-paper should be provided.

The following lists, suggested in the Ministry of Education's Pamphlet No. 2, *Organised Camping*, will be found invaluable:—

Requirements	*Used in cases of*	*How to use*
½ lb. bicarbonate soda	Burns	Immerse injury in solution, 1 teaspoon to ½ pint warm water. Apply saturated solution
	Sunburn	Apply as paste on lint
	Toothache	Rub on gums and pack in tooth
2 oz. magnesium sulphate (salts of magnesia)	Inflammation	Apply saturated solution
	Midge bites	Apply saturated solution
¼ lb. washing soda	Wasp stings	Apply saturated solution
	Midge bites	Apply saturated solution
1 oz. boric powder	Sore feet	Apply dry
	Eye-wash	Dissolve in water, 1 teaspoon to 1 pint water
¼ lb. salt	Sore throat	Gargle with water, 1 teaspoon to ½ pint water
2 oz. glycerine	Earache	Pour in from teaspoon warmed in hot water
4 oz. methylated spirits	Sprains and bruises	Apply on pad, diluted 1 part meth. to 3 parts water
1 oz. sal volatile	Fainting	Smell it: directions on bottle
1 oz. permanganate of potash (poison)	Snake bite	Cut and rub into bite
	As disinfectant	1-2 grains to ½ pint of water
1 bottle fruit salts	Aperient	As on bottle
1 bottle disinfectant	Disinfectant	As on bottle
1 bottle acriflavine	Cuts, burns and insect bites	As on bottle
1 bottle surgical spirit	Disinfectant	For instruments
1 bottle aspirin	Headaches	1-2 swallowed
Glycerine and thymol pastilles	Coughs	Suck
1 jar skin cream	Sunburn	Rub on
Sanitary towels		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4 oz. white lint
½ lb. cotton wool
1 one-inch adhesive bandage
1 three-inch crêpe bandage
3 three-inch bandages
3 two-inch bandages
1 yard Jaconet

1 box of dressings
6 triangular bandages
1 tourniquet
Scissors
Safety pins
Medicine glass
Thermometer
Forceps
2 small enamel basins

1 hot water bottle
First Aid book
Chamberpot
Towels
Thermos flask
Pressure stove and small kettle
Cotton wool swabs and lint pieces in screw-top jars are convenient.

Emergency Haversack

Assorted roller bandages
6 triangular bandages
Assorted dressings
Acriflavine

Cotton wool
Lint
Adhesive bandage
Tourniquet

Disinfectant
Splint
Safety pins
Bicarbonate soda
Scissors

EQUIPMENT FOR A CAMP OF 30 WITH A STAFF OF 4

2 large wire door mats to use as fire grids or the equivalent
60 bricks for kitchen fire
2 galvanised dustbins for hot water
1 bell or gong
1 lidded bucket or bin for pig bin
1 lidded bucket for collection of waste for incinerator
1 alarm clock for Quartermaster
8 yards buttermuslin
3 scrubbing brushes
2 breadboards
2 galvanised baths for washing up
12 bowls for washing
12 small bowls for sugar, jam, etc.
4 Medium mixing bowls
3 basins or large stone jars to fit inside dixies for steaming puddings, etc.
4 large mixing bowls
1 large collander
1 corkscrew
6 dish cloths
2 dippers for water
5 large dixies
2 sets of nested dixies
3 yards elastic for meat safe, etc.
1 carving fork
1 carving knife
3 bread knives
2 large frying pans
1 large grater
1 measuring jug
2 ten-pint jugs
6 three-pint jugs
1 large kettle
1 small kettle for first aid
3 ladles for serving
6 washing-up mops
6 potato peelers
1 three-gallon aluminium porringer
1 one-gallon aluminium porringer
4 pot scrubbers
2 fish slices
1 strainer
1 kitchen scissors
1 small saucepan, mainly for first aid
2 wooden spoons
3 large serving spoons
6 salt sifters and 6 pepper sifters
6 enamel trays for bread, etc.
6 large teapots
12 tea towels
1 large egg whisk
1 marquee 30 ft. x 15 ft., for meals
6 bell tents or large ridge tents (approximately 13 ft. x 8 ft.)
4 ridge tents, 6 ft. x 8 ft., for staff
1 ridge tent for first aid
1 large ridge for food storage
1 fire shelter (10 ft. x 10 ft.)
Screening for three latrine units (all screening units—two compartments)
Screening for three wash-house units (all screening units—two compartments)
(At least some of these should have roofs)
4 tables
150 blankets
36 groundsheets for sleeping
36 waterproof strips for sitting on
6 small shovels for latrines and 6 covers for toilet paper
2 spades
3 hand axes
8 buckets

6 duck-boards for wash-houses
10 hurricane lamps
1 pressure lamp
1 paraffin can
1 pressure stove
1 meth. can
1 bow-handled saw
1 tarpaulin to cover wood pile
1 camp bed for first aid and for staff, if desired
Spare plates, cups, knives and forks
Spare rope for clothes line, meat safe, etc.
Orange boxes and tin boxes for food storage
Tools—hammer, pliers, etc.
Sledges and wedges if big timber is being handled. (These are much safer than felling axes)
Spare duck-boards are helpful for making stands for storage of equipment
Tables and benches add to the ease and comfort of meals, and can be used for recording work connected with camp activities at other times. (Five tables and ten benches)
If possible, a second marquee for recreation with books, maps, paints, and other appropriate materials for countryside activities should be available
Spare tent pegs of all sizes
If water is not laid on to the site, churns may be needed and a low, four-wheeled trolley. The farmer may bring the water with his tractor.
1 cottage tent (10 ft. x 10 ft.) for the Director, which can be used for an office tent, and for staff meetings, is helpful

EQUIPMENT FOR LIGHTWEIGHT CAMPING

The following list is suggested by the Camping Club of Great Britain and Ireland as a guide to those desirous of going light-weight camping. The weights shown are average weights, and by careful selection of the equipment which is obtainable, it is possible to reduce the weights still further.

Equipment for One Person: Article	*Average weight* lb.	oz.
Tent, single pole type, with alloy pegs	3	0
Alloy pole to suit		8½
Groundsheet to suit tent	2	0
Stub plate (to go under pole)		4
Sleeping bag (down)	3	0
Petrol pressure stove (small size)	1	4
Pedestrian cooking canteen		10
Mug, plastic		2
Plate, aluminium (9 in. diameter)		3½
Knife, fork, spoon		3
Tin opener (flat baby type)		½
Water bucket, canvas (1 gallon)		3
Washing basin, canvas (small square type)		2½
Rucksack, with alloy frame	2	4
	13	13

The above are practically indispensable. To them may be added as extra comfort:—

Average weight—lb.	oz.
Ground blanket	1	0
Windscreen for pressure stove		3
Milk bottle, aluminium		3
Food boxes, two, small (butter, etc.)		5
Plastic food bags (for bread, etc.)		1
Combined pepper and salt condiment box		2
First Aid set		4
Flysheet, complete with pegs	2	6
Pocket torch		8
Total weight (with extras)	18	13

Tightening up on

SECURITY

A police inspector suggests some precautionary measures that schools should take against theft—inside and outside the building

YOUR local police are as interested as you are in ensuring that there are no "incidents" up at the School—no morning when a ladder from the grounds is found set up to an opened window and valuables missing from the office; we don't like, either, being called in to find a pilferer among the staff. Such visits, we know, can ruin that happy atmosphere below stairs quicker than anything else. Both of us—headmaster or headmistress and local police officer—have a decided interest in seeing that there is "nothing to report."

Keep the police informed

That doesn't mean, by the way, that an occasional telephone call from you will be unwelcome. I may not, and you may not wish me to, appear very frequently in uniform at the school. We may not need to meet for years but the station does like to know what is going on. We like to know about a big sporting event, bringing into the town or village a considerable number of cars. But, from the point of view of security, there are often minor matters you can tell us about and in which we can often help. Foreign domestic staff, of course, we must be told about. We can often be very helpful, too, over local staff. In fact, anything or anyone who worries you should not be kept to yourself. School proprietors, like householders, are a little too unwilling to appear "fussy" or nervous. It is the odd caller, the car mysteriously standing in a lane too long, the telephone calls that don't mature, that may be the first signs of trouble. If the police know about them, trouble may be averted.

It is always unsafe to generalise but I'll risk saying that the key to security in any school or institution lies in having a carefully chosen, and unostentatiously watched, domestic and outside staff. Cracksmen don't often take jobs as school porters, I know. But very often unreliable staff are the informers or minor allies of the thief. Security for a school begins by exercising considerable care when domestic and garden appointments are being made.

"He had first-rate references. . . ." I know, nearly everybody has! When employing local labour of any kind, how many schools first ring the police? Very few, I'm afraid, out of a mistaken feeling that it isn't, somehow, "cricket." But it *is* sense. It is our job to know our town or district—and we do know it in a way that might surprise you. We don't only know the bad hats. Inevitably we come to know a good deal about every local family and the reliable workers.

Here is an example of what I mean. It was fairly common knowledge in my part of the world that a certain man had done a prison sentence of some length. I received a call from a school. His wife had applied for a cleaner's job. I happened to know that her husband had left her; that she was a very decent, hard-working little woman who badly needed a steady job. I was able to answer for her, save the school a certain amount of worry, remove some prejudice, and make a mental note to watch out for what was very unlikely, the man joining up again with his wife and, perhaps, using her connection with the school for his criminal ends.

School and College

Where the staff are always changing, the security risks are more than doubled. Moral—easier said than done, I know—is to keep a good staff together as long as possible. Even where a school has a good staff there is one other source of danger—"followers." Maids are human—they have boy friends and they gossip. There is little you can do to prevent an employee in all innocence, giving valuable intelligence to criminals. There would seem to me, however, to be nothing amiss for someone—perhaps the headmaster's wife or the housekeeper—giving a periodic and informal talk to the girls on the dangers of chatting too much about school affairs, and suggesting that the man casually met, who seems unduly interested in the place where she works, may be more interested in the school cups than in her. It would therefore perhaps be wise to keep all "followers" off the school premises.

"Perks" or pilfering?

Nearly all schools, at some time or other, have a petty pilferer on the staff. Perhaps it would be accurate to say most schools always have one! I don't recommend a fatalistic attitude towards this form of dishonesty. Sooner or later the school decides to do something — quantities vanishing cannot be ignored any longer. We catch someone for you and she says: "Everyone does it!" And we usually find that they do! A tradition can grow very quickly (and affect the most respectable of working women) that there are certain "perks." The women are indignant when their right to them is challenged. The only thing is firmness from the start. The attitude that the school is impersonal, an institution, and so fair game, must always be fought. And people in authority are not always blameless—this attitude is catching. I have had to discontinue an investigation into vanishing sugar because both a matron and lady caterer had hordes in their cupboards. Not quite the same thing as a pound packet in a cleaner's string bag, perhaps, but the line is hard to draw—and is often invisible to the cleaner.

Putting "valuables" away

Prevention is better than cure. If staff are important, it is only common sense to see that opportunity for thefts is reduced to a minimum. It is pleasant to display silver cups—but there should be a nightly drill whereby such valuables are placed in a safe. Typewriters, too, have greatly increased in value, yet many people are very casual about them. There was a case recently where three hundred pounds worth were taken, in broad daylight. "We've called for the typewriters for repair," said the men. They were in a van and away before anyone realised what was happening. Tighten up your drills; have a very clear understanding with all staff what may, and what may not, happen without someone in authority being informed first. It is so easy, in a decentralised institution, for a thief to get away with things. "I saw it go but didn't think. . . ."

Don't help the burglar!

A thief's work is made very easy if outside staff are careless and casual about ladders, etc. Tighten up groundsmen's and gardeners' discipline. Where a school is isolated there is a lot to be said for having some discipline, too, among the teaching staff over the parking of their cars. Where cars cannot be put in a locked garage it is only common sense for rotor-arms to be removed at night. Too many thieves find everything ready waiting for them—the ladder, the get-away car, all lined up. It's too easy—and it needn't be.

Why not a security officer?

It might not be a bad idea for any institution to have its own amateur "security officer." A youngish member of the teaching staff of a boarding school might tackle the job. Someone who can see everything that goes on and be responsible for certain precautionary drills is needed. And—a point to remember—you may not keep a dog but you have any number of keen young eyes about. Nothing much should go wrong in a place where there are eighty or a hundred young boys. I remember a book—made into a film, too, I believe—called "Emile and the Detectives" where certain small boys gave a very impressive performance of common sense, guts, and detective ability. We don't want, in the school story manner, the boys in the Third to undertake police work but undoubtedly your pupils could be very effective watchdogs.

What's so badly needed in an institution is not spying, not tale-telling, but a conscience and a sense of responsibility for everything. Not easy, I know, to instil into the minds of the young, but not impossible. It might be good value for you to ask up to School your local police officer to give a talk to the boys on how they can help to prevent loss and theft. If I know boys, they'll give a police officer rapt attention!

is the SCHOOL

Do parents find them useful, or are they just souvenirs of school life? Are we wasting money on something which is increasingly costly to produce? C. L. Berry poses and answers these very controversial questions for both State and fee-charging schools.

THE years which have followed the passing of Mr. Butler's Education Act and the supposed outbreak of peace have seen in many schools the end of the school prospectus. In other schools, where such a thing is still issued, the production is but a shadow of what was issued, say twenty years ago. It would seem at first sight that the new practice, or lack of practice, is determined by the answer which each school gives to the above question. If a prospectus is not really necessary, why spend money on producing and distributing prospectuses? It must be said at once that the tremendous rise in the costs of paper, printing, photography and distribution since the war is enough to account for the sadly changed character of such prospectuses as are still deemed to be really necessary. Such financial considerations have compelled principals and proprietors to adopt many different devices which, by reducing expense, enable the school to continue the production of its prospectus. How much of value is lost by such means depends on what one regards as the real purpose and justification of the school prospectus.

What the Education Act, 1944, or any other statute can have to do with the subject may not be immediately evident. Certainly so far as independent schools, both public and private, are concerned the present position is not the result of educational legislation. There were, however, until 1945 thousands of schools which were maintained or aided by Local Education Authorities, and in which fees were charged to at least some of the pupils. Since that year it has been illegal to charge fees to parents in any of such schools. The school prospectus was in a quite proper sense of the word an advertisement of the school. It was issued to parents of prospective pupils. The information which it contained—and, it must be admitted—the way in which that information was presented was one of possibly many factors which determined the parents' choice of school. It must be remembered that in those very different yet quite recent days parents had a right of choice. So far as they could they exercised their right according to their own judgment. The reality of their freedom of choice might be very greatly diminished if not wholly extinguished by material and environmental factors. The parents' income, the number and situation of the schools appropriate to the child's age, ability and sex and other practical considerations might vary from case to case, but there was no law or regulation to prevent a choice which might otherwise be available from being effectively made. To-day, notwithstanding the "general principle" enunciated in Section 76 of the Eduction Act, 1944, most children have to go to the nearest primary school and, after the age of 11, to the nearest secondary school of the type (grammar, secondary or what not) which the Local Education Authority, after most careful consideration considers to be appropriate to that child's age, ability and aptitude. The schools concerned are thus filled with children by the Local Education Authorities and not by the parents. It is therefore obviously quite unnecessary for them to spend public money on issuing tempting prospectuses. It may nevertheless be recorded that prospectuses have not died out among such schools. They may be less expensive than they were and of less interest to those who might wish to preserve them as souvenirs of their old schools, but they can

PROSPECTUS *really necessary?*

still be valuable and informative. In their new austerity format they can be more frequently revised and re-issued. They can, therefore, contain complete and ever up-to-date lists of members of the teaching staff and of the governing body, dates of school terms and even (where the prospectus is issued annually), of the principal events in the school year, examination details, school rules, and even some record of achievements by the school and its former pupils. One thing is, of course, conspicuously absent from any prospectuses that may be issued by maintained schools—"county," controlled or aided—and that is any reference to fees!

For the fee-charging school, not only the independent schools, but the direct-grant schools too, the prospectus still serves undiminished its original purpose in full. Parents are often influenced for or against a school by its prospectus, and this is neither unreasonable nor in all ways to be regretted. The prospectus may tell even more than its author realises about him. It will be agreed that above all things a prospectus should be truthful. It should be informative. It should be attractive and simply as a production, itself worthy of the school it describes. The post-war economy in expenditure has in many cases caused prospectuses to be very much abridged and to be printed without any photographs or other illustrations of the school. It is a fact that the cost of paper has recently shown a welcome reduction. Advantage might be taken of this to restore the prospectus to its former size. Even if the expense is heavy, the value of good illustrations should justify the cost. It is indeed better in many ways to *sell* a good, well printed and illustrated prospectus than to *give* a cheap and inadequate one or to *lend* a sumptuous production which gets more and more tattered, soiled and shabby every time it is sent on its travels. The point about truthfulness may well be illustrated by reference to its opposite. One is only too familiar with the illustrated tariffs of certain seaside hotels. There is perhaps a picture of the hotel, not a photograph but a drawing in which all perspectives are exaggerated to give greater size to the building. The whole of one room, ingeniously elongated appears as "a corner of the lounge." A bedroom of amazing size and incredible luxury, quite different from any room which a visitor may book, is illustrated as "one of the bedrooms." The distance from the sea is not of course exaggerated or artificially prolonged. It is contracted to a few yards. This kind of thing is not altogether unknown even in school prospectuses.

The first thing that a prospectus should tell one surely is the *situation* of the school. The name and postal address are not enough. The name of the building may have been changed even since the last ordnance survey. The postal address is not even meant to be a guide to motorists or pedestrians. A clear and simple statement of the location of the school, and particularly of how it can be reached from the nearest railway station and main road, can be of tremendous assistance to the visitor who does not know the school. The prospectus might in many cases be usefully illustrated with a small map showing the school buildings, grounds, playing fields and their immediate vicinity. With a school, as with an individual, name, address and age come before all other information. The date of the school's foundation, the name or names of its founder and principal benefactors, when the school was incorporated, and when the present buildings were erected or acquired—all this is information which should find a place in a prospectus. Returning again to truthfulness, it must be admitted that school prospectuses are sometimes sadly lacking. Schools of very considerable antiquity are sometimes not content with a Tudor or Stuart origin, but boldly assert continuity with some medieval foundation for which at best they are remotely substitute.

(continued on next page)

is your School Prospectus necessary?

Other schools are unnecessarily reticent about their origin. A modern foundation is as much a fact of history as a more distant date and as worthy of record.

The status and constitution of a school should be recorded as information of first-rate importance. It is a distinguishing feature of English education, as infuriating to some people as it is comforting to others, that both within and without the so-called "State" system, there is a wide variety of types of schools in respect even of status and constitution. If the school is in any way controlled by a governing body particulars of that body should be given. Parents are entitled to know who really sponsors a school and what that school's real affiliation is. In some cases this may more easily be indicated by stating who are the trustees of the school. There are many independent schools in this country which belong to companies or corporations which are responsible for perhaps a group of schools of the same type. There is no good reason why it should not be frankly stated that a school belongs to such a group, company or corporation. There is nothing to be ashamed of in the fact that a school is a private proprietary school. Such a school, too, has its history and the succession of its proprietors and their achievements is worth recording. So, too, is the principal's membership of such professional organisations as the Incorporated Association of Preparatory Schools and the Independent Schools' Association. Parents are now being educated to understand what is meant by "recognised as efficient by the Ministry of Education." If an independent school has been so recognised after inspection by Her Majesty's Inspectors the fact should be stated in the prospectus. Its importance, particularly to the proprietary school, cannot be exaggerated. Many school prospectuses accordingly give priority to this above all other particulars and record it immediately after the name of the school. If a prospectus is inexpensively produced and so can be revised and re-issued frequently, it should be possible to give particulars not only of the principal but also of the assistants on the teaching staff and of the matron and others. Here, too, something more than names is necessary. Qualifications should also be given. Sometimes the mere addition of letters after a name can be positively misleading. One man's best qualification may be a degree or a diploma. Another's may be some years' successful work at a famous school elsewhere. If so, the latter information is surely deserving of mention.

It is really unnecessary to add that full details both of essential fees and optional extra charges must appear in the prospectus. Such information is its financial *raison d'être*. There, too, will be set forth such rules and regulations as must be observed by all pupils —and parents. The aims and objects of the school, its educational methods and any distinctive features of its work will be incorporated in the general section or perhaps in a descriptive article on the school's life, work and purpose. In any such description sincerity should be the keynote. Some school prospectuses are in this respect quite a valuable contribution to educational history.

It is rather disturbing to find how some prospectuses treat the very important subject of religion in school. Some indeed hardly mention it at all. Others included Religious Instruction among the subjects taught. They do not consider it necessary to say anything about the character of that instruction or even of the religion in question. Some again seek to give a vague, colourless and (they hope and believe) generally inoffensive and acceptable statement which cannot but bewilder any really thoughtful person. If the school is Anglican, Methodist, Roman Catholic, Quaker, Moravian or what not, the fact should be clearly—and, one would even expect, proudly —stated. There should be no room whatever for misunderstanding. The prospectus should state not merely what is taught, but what is done, practised and lived, what services are said and where. If the school is undenominational this, too, should be made clear. As no children are themselves undenominational the prospectus should state what opportunities and facilities there are for the children to attend the worship of the church or religious confession to which they or their parents belong.

Continued from previous page

CENTRALISED COOKING SAVES MONEY, BUT . . .

- **Does the standard of cooking deteriorate ?**
- **Is the small, family-unit atmosphere lost ?**
- **Will parents object ?**

OUR school has six kitchens; one junior, four middle, and one senior school. The senior is splendidly equipped and serves a main meal for 150 quite easily. It costs us £2,000 a year to maintain the other five kitchens, taking into account the wages and board costs of the cooks and purely kitchen staff, the cooking fuel costs, and the wastage of one sort and another when catering in small, individual units. Can we close down the cooking in these five places, and prepare all meals in the senior kitchen, sending them round in containers by van? The saving of such a sum requires careful thought. In these days it can be the difference between a profit and a loss, or be the means of raising salaries. There will be strenuous opposition from those most closely concerned and a lowering in the standards of food presentation is inevitable. Is it going to be worth it? That is the question I want to face up to as honestly as possible in this article.

The local education authorities up and down the country have been doing this sort of thing sucessfully for many years, but in our case it is an important change in our system. Some would say it is a lowering of standards, though I believe this need not be so with careful planning.

How would parents react to such a change? They decide to send their children to us because they believe they will be well taught and well cared for. They think how good it is to have small units, and what good food can be cooked in the small, family kitchens catering for twenty. The child is sent and the fees are paid, and then the parents find we dismiss the cooks, close the small kitchens, and merely use them to keep hot food delivered in containers from a central kitchen. Have they a just cause to grumble?

Many of us have had to alter our way of life to keep within our incomes, and so it is reasonable for a school to economise where efficiency is not impaired. The way to increase income is to ask parents for more, and I think the majority would expect sensible economies before schools considered putting up fees again.

Is this a sensible economy? It is a luxury to have one cook for twenty boarders. It is wasteful to cater in small units. It is ideal for children to be catered for as individual members of a large family rather than impersonally in a group of a hundred or more. Providing we do not give up the small feeding units and push them all into one large dining hall, remembering that the age range here is seven to twelve, the difference will be in the loss of food values. The housemother in charge of each group can still run her family dining-room and lavish attention where necessary; can minister to her vegetarians, encourage the "choosey," and slow down the gluttonous.

The loss of food value is the most serious, one would think. The food may well be ready an hour before it reaches the table, and the loss of vitamin C from green vegetables kept under these conditions is well known. I remember, in my service days as an R.A.F. catering officer, tests being carried out. In an airmen's mess, feeding a thousand or more, your senior N.C.O. liked to be well ahead with the cooking, and if you didn't watch out the cabbage would be coming out of the giant steamers by eleven o'clock and

BURSAR'S CHARIVARI

remain on the hot plates for two hours! Our official testers, with their weights and measures, assured us that by then they were worthless.

Perhaps it would be possible for the housemother to cook the green vegetables in her house kitchen. There are Agas in these kitchens which would be alight in any case for hot-plate duty and breakfast and supper drinks, as well as hot water for bottles, etc. After all, they only cost fifteen pounds a year for fuel. This would solve the "greens" problem, but there are other dangers of food values when one kitchen is asked to provide meals for larger numbers. They usually have to do with preparation in advance, such as cooking the roast the day before, and, after slicing next morning, re-heating in trays. Troubles can spring from re-cooking food, especially meat, which doesn't say much for those stand-bys—cottage and shepherd's pie. Cook may say it isn't easy to carve when it's hot, and she can't get the numbers out of the joint. I do not believe this, and am sure a continental chef manages his numbers and makes sure he has a really sharp knife. There are first-class hot-meat slicers which are said to save their cost in no time. It will be possible to overcome these obvious difficulties of large-scale catering, and, indeed, with the right cook in charge and one kitchen only to control the nutritive value of the food might even increase. A vastly interesting problem.

How other schools cook

The local education authority allowed us to visit one of their central kitchens in a nearby town. There they are cooking meals for 900 pupils in schools spread about the borough. The kitchen lay-out was impressive and there was a general air of efficiency about the place. We arrived soon after 10 a.m., and the first school's dinner was just ready to come out of the ovens. Roast beef, roast potatoes and cauliflower, with a bread-and-butter pudding to follow. The vegetable preparation was still going on for the later meals, and we found that the first meals to be loaded into the van would remain in the containers for an hour and a half, while the later ones in the morning might only be dished up three-quarters of an hour in advance.

An oblong, aluminium tray was used for the roast potatoes, meat and vegetables and pudding. The size was roughly 2 ft. 6 in. by 1 ft. by 3 in. deep, and each one had a shallow lid. The bread-and-butter pudding was prepared in this tray, cooked in this tray, and served out in this tray. In other words, much work is cut out by doing this so simply from start to finish, and also the food stands the best chance of keeping hot until put on the plate, and this means no re-heating on arrival at school, with a further loss in food values.

The joints of beef, boned and rolled, came out one after the other in sizes, and were put on to the hot-meat slicer, so that in a few moments the even slices were back into the tray again, the lid put on, and the whole put into the carrying container. These are designed to take three trays and are cork lined between aluminium. They will retain the heat for four hours if necessary.

Obviously, the containers and trays are chalked each day for easy identification on arrival. There are other shallower trays for pastry and other sweets, and other travelling containers, round in shape, to take smaller quantities or the "sloppier" foods.

Making up for vitamin loss

This aluminium equipment is sterilised by placing upside-down over a small jet of steam raised by gas in this particular case. A bread-crumbling machine was doing its job very silently. Another machine was apple coring and peeling, hand-operated.

In discussion over a pleasant cup of tea with the very helpful supervisor, it was confirmed there was no way to overcome the vitamin losses from green vegetables. Once a week raw vegetables are sent out, but in the main they expected this loss to be made good in the home, just as in our case we should plan the tea meal accordingly.

Condensation can be troublesome, though the trays are left uncovered for a few minutes after cooking to reduce steaming-up on the journey, and greaseproof paper is used for the same purpose. Roast potatoes travel fairly well, but "chips" are hopeless.

We left this kitchen very hopeful that a centralisation of cooking could be carried through sucessfully, given the proper equipment, and convinced that the financial economy would be greater than first anticipated. To be able to do this a school should have a well-equipped kitchen with room enough to put in some more if necessary, be prepared to add a labour-saving device or two, not cheesepare over the cost of correct containers, and, above all, be blessed by having a thoroughly co-operative staff and a head cook who does not see difficulties at every turn. I am in just this lucky position, and would say more, but it wouldn't really do when *School Management* goes the rounds as it does in this school.

taking sides about

BREAD

Schools will have to make up their minds, next autumn, which bread is to be on the menu—the new white or 80 per cent? Dietitian V. H. Mottram weighs up the pros and cons once again for readers . . .

THE Ministry of Food's change of policy concerning bread sets a problem to all schools and other institutions where they board the human and not-so-human race: shall they switch over next Autumn Term to the new white bread, or shall they stick to the "old-fashioned" 80 per cent extraction bread—the national wheatmeal bread?

The problem is, let me hasten to say, not, I believe, one of nutrition, but of expense. It will make a big addition to the food bill if the change-over is made. In a small public school with only 250 boarders, the additional cost will be in the region of £750 per year. Even in these days of colossal food bills, when most mornings bring us the news of the rise in cost of some food or other, £750 is a sum not to be sneezed at.

A question of cost

Next August there are to be two sets of bread on the market: (1) that made from 80 per cent extraction flour, fortified with 14 oz. chalk per 280 lb. sack, as at present; and (ii) that made from 72 per cent extracted flour fortified not only with chalk, but iron, vitamin B, riboflavine and nicotinic acid. Nutritionally speaking there will be little to choose between the two breads, but of that more later. The snag is that the 80 per cent flour being still subsidised will cost about 6d. per lb. when sold as bread; but the new type of bread, the fortified white bread will cost in the region of 9d. per lb. If you change over to the new bread your baker's bill will increase by 50 per cent.

I do not doubt that the new flour will make a better-looking loaf. It will have risen more, its crumb will be whiter and more springy, possibly its crust will be more flinty in appearance. It will rejoice the miller's heart. (I well remember seeing, two years back, the comparison between the two types of bread in one of the most up-to-date mills in the country. The staff were allowed to bake for their own information loaves from the different types of flour: 72 per cent and 80 per cent extraction. And the technicians who showed us the loaves almost knelt in reverence before the fully white loaves—the 72 per cent type. I couldn't help remembering the "shewbread" in the book of Samuel.)

I think the new flour will rejoice the housewife's heart when she is making pastry, for, once when an American friend sent me some flour of this new fortified type, I found it excellent for making shortbread.

It may trouble the nutritionist's conscience a bit, but the person who is going to worry is the bursar!

When screams rend the air

As soon as school assembles next Autumn term the academic atmosphere will be disturbed by screams of indignation whatever the school authorities decide to do. Suppose they decide, as I think is reasonable, to stick to the old type of bread, the main trouble will be with the snobbishly inclined. They will say the new type of bread costs more, therefore it must be better. Ever since 1066 the upper classes have eaten the whiter bread and left the browner or greyer loaves to the commonalty. Naturally in each age the new

rich have aped the nobility. The cry has gone up for a whiter and whiter loaf. And to-morrow it will be the well-to-do who will afford the dearer loaf, and the snobbishly inclined will imitate them.

Further, those members of the community, who feel that they are always being done out of something by the authorities, will demand what they consider should be the better bread, i.e., the more costly. (Once when I was investigating the diet of a boarding school one interrogee complained that the food wasn't as good as his mother provided. On questioning it seemed that that home lived on poultry, game and fresh salmon when in season!)

Hot words on food cranks

No less perturbation will there be coming from the food cranks. These will be mainly in the staff. They won't be satisfied with anything less than 100 per cent extraction of the wheat grain, and it should be home-grown, stoneground wheat flour. You cannot argue with these folk. They *know* the truth, even if it contradicts scientific evidence.

Finally, some nutritionists raise a mild protest. The great Elmer McCollum is one of those who do.

It is undoubted that in milling flour from wheat you do lose sundry constituents which may be of importance to man. For example, as you pass from 100 per cent extracted (i.e., true wholemeal) you lose progressively more and more vitamin B_1. Wholemeal will have about one unit per gramme; 72 per cent flour—i.e., white flour—will have but a quarter of a unit. You lose also nicotinic acid in much the same proportion. Riboflavine, the other main B vitamin in wheat, you do not lose so much of.

Counting the losses

At 85 per cent extraction the losses begin to be marked, and to prevent heavy loss you should not go below 80 per cent. That is the compromise figure adopted some years ago between the claims of the millers for a really white flour of 72 per cent extraction and the nutritionists who thought you ought to keep the extraction to 85 per cent.

There are also losses in iron, calcium, phosphorus and bran.

In the United States, for some time now, they have had bread and flour made on the 72 per cent plan, with iron, vitamin B_1 (they call it thiamine), riboflavine, and nicotinic acid added artificially, to make it equal to, or better than, wholemeal in those respects By milling they have taken out these substances, plus the bran, and then put them all back again without the bran. This is the sort of bread and flour we shall be able to have from August next onwards, except that ours will still further be fortified with calcium in the form of chalk. The theory underlying the practice is that such flour and bread are nutritionally as good as the wholemeal. They haven't got the bran, it's true, but to most of us that is an advantage.

But here the ultra-careful among the nutritionists step in. "It is true," they say, "that you have put back into the flour those mineral elements and vitamins which we know to-day to be important, but may there not be others which we know not of, also milled away from wheat grain in the process of making 72 per cent extraction flour? Can you be sure that the new fortified flour is of as great nutritional value as wholemeal?" The answer to such hair-splitting is: "No, we can't be sure! But we can be sure that this flour is better than unfortified 72 per cent stuff, and ten to one that any imagined hitherto undiscovered vitamin removed in milling will be supplied by the other foods people eat. Man, particularly in boarding schools, does not live on bread alone."

Support for the "80 per centers"

So far as nutritional science at the present day can say there will be little difference between wholemeal flour and bread, the current 80 per cent extraction flour and bread, and the proposed fortified flour and bread which we are promised in August next. The appearance of the last will probably be better than the 80 per cent flour and bread. Bakers and pastrycooks will prefer to work with it. And many consumers will like it. (But you should hear my American friends on the American loaf! Fluffy sponge, turning to plaster of Paris in your mouth. No taste, no flavour.)

I back the Bursar if he decides to stick to the 80 per cent flour and bread. I certainly should in his position. But how is he to quieten the malcontents? I suggest that he frankly discusses the whole problem, should it arise in vicious form, with the whole school, putting the nutritional and economic position forward. He can give exact figures for the rise in costs which a change-over to fortified flour and bread would entail. His trump card always will be a threat of a rise in the amount of school fees. And for what? Possibly advantage to the lust of the eye and palate with a chimerical advantage to nutrition!

Planning the Kitchen for STAFF EFFICIENCY

IT is always stimulating to read or hear the opinions of an acknowledged expert and quite recently a book on large-scale catering management provoked many of us to serious thinking. Often, only too lightly, we accept a point of view or allow an ill-formed habit to become a rule of conduct. The shock of disillusion produced by authoritative denunciation of some pet theory may be disconcerting, but it should also evoke a resolve to reform. Spring-cleaning of the mind is as necessary as that corresponding domestic upheaval—perhaps more so. Are we as happy to follow the plans of last autumn which we automatically tucked away with the summer draperies or have we formulated, as the months passed away, new and better schemes for the success of our work?

Surely there are few households unaware of the need to exercise care and vigilance in matters of finance, yet recently two women were overheard discussing the advisability of purchasing duplicate equipment in case some worker or other failed to appear in a kitchen. Apparently that meant that there would be no one available to prepare and use a certain type of steamer. It all sounded quite incredibly casual, both in respect of finance and staff control. It also showed an amazingly low standard of training in kitchen work and a complete lack of adaptability in menu planning. But this attitude of mind was not unfortunately so unusual. Quite a number of people consider equipment as the automatic answer to work and forget the human agent needed to control the machine. To be so rich in equipment as to be able to postpone the cleaning of one piece of machinery until "later" is bad policy, yet one meets such conditions and, one sees the consequences of neglect too. Prompt cleaning of equipment is most desirable and it needs much less effort and time to wash down an oven or steamer whilst it is warm and "overspills" and stains are newly made, than to cope with congealed grease, etc., and injure a surface by having to scrape off burnt foods and juices too vigorously. One wonders also how often much time is wasted by lack of planned work. One kitchen which depends on practically all non-resident workers arranges at lunch-time and for the evening meal for one or two responsible women to return to work half-an-hour earlier than the remainder of the kitchen staff so that all the heavy cooking ware can be washed and put away before the ordinary crockery appears.

The tureens, sauce and gravy boats, the meat dishes, etc., can then be emptied and prepared for the sink and surplus food carried away quickly in clean containers and kept free from contamination. When the remainder of the women arrive, washing-up is quickly accomplished in the various pantries and the dining rooms prepared for the next meal. Though it is advisable to delegate work of special importance to certain responsible workers, it is equally necessary to train others as deputies. If only in the name of variety, one can introduce new work to the workers, and with kindly encouragement one can build up adaptable and interested staff.

(continued on page 173)

Encouraging each member of the staff to take charge of a particular type of equipment: allowing more intelligent members to take responsibility for the work of the rest—these are some of the points that Elizabeth Midgley makes in this month's Housekeeper's Notebook.

"Drill" to Physical Education

(Continued from page 155)

ought we to say "Union"? It was in the years between the wars that the interest of schools in camping grew apace, but in spite of statutory encouragement, the depression in industry and trade which began about 1929 prevented the rapid growth of physical education in its widest sense in the schools. The various "economy" periods of those days resulted in schools being built without gymnasia, without assembly halls even, and with insufficient paved play pitches and playing fields. This side of school development was then "cut to the bone."

Once again the clouds of approaching war stirred the country into realising the pressing need to encourage this third realm of education, and the Physical Training and Recreation Act, 1937, came, somewhat tardily, to remedy the effects of "the years which the locusts had eaten." This Act provided grants to voluntary bodies and increased the powers of local education authorities to extend the work of physical education—not merely in schools, but within the community generally. It can indeed be said that the battles of the second world war were won on the playing fields and village greens of the British Isles.

What had, to some extent, been allowed and encouraged officially under the Education Act, 1944, now became for the education authorities a duty. This Act requires such authorities, in their primary, secondary and further education schools and colleges, to ensure that the facilities for recreation and social and physical training should be sufficient. It is interesting to note that a regulation of the former Board of Education, which had laid upon local education authorities the duty of appointing organisers of physical training, was, in 1945, withdrawn, since by then physical education had become fully established and well understood.

And so to-day "physical education" has completely eclipsed the old idea of "drill." It has been designed to recognise the differences of individual needs, interests and capabilities. The trials and stresses of adolescence are made less acute by the use of intelligent physical activity as a safety valve. The conception of this part of the education of the person and the group has grown to include activities which imply adventure, which is the spice of life for youth. Swimming, general athletics, walking, dancing, Youth Hostelling, camping are all parts of this physical side of education which, along with interest and prowess in the great national games, have been projected into the social life of to-day among our young people. The packs of bronzed cycling youths of both sexes who stream, during a week-end, out from our cities into the countryside around are evidence of this cult of activity in the open air. The Scouts and Guides, with their light camping equipment, are another.

This is a far cry from the drill and Swedish exercises of the early years of the century. Physical education is now a joyous thing and not the ineffable boredom of my own youth, when we stood anchored, almost, to the ground and waved our arms and moved our legs in a limited, aimless sort of way. To-day, physical education is linked with the need of youth for action and adventure.

Epileptic Children

(Continued from page 151)

are children who have injured brains, but these, I think, should really not be put under the group of idiopathic epilepsy. Another cause of mental impairment may be the result of seizures, especially when they are of the grand mal type, where the brain gets congested and possibly injured during attacks. All this is rather assuming the patient has no treatment, and treatment may completely alter the outlook, usually, of course, for the better, but over-treatment may be worse than no treatment. In America presumably there is a large trade where medicines can be purchased by mail, and the dangers of over-dosage there are very great. Perhaps schools can do more to prevent one cause of mental impairment by avoiding psychological or social mistreatment. The golden rule should obviously be to give the individual as good a chance as possible. He will certainly be debarred from certain forms of employment. Allowances for the very occasional attack which he may have must be made by any employer. To draw a hard-and-fast rule as has been done in the past is probably wrong. This we will discuss later.

The examples of great epileptics may help. Julius Cæsar, Peter the Great of Russia, Charles V of Spain, Alexander the Great, Alfred the Great, William III and St. Ignatius are all historical figures. Among those who followed more learned professions may be mentioned Byron, Swinburne, Edward Lear, Nicolo Paginini, Blaise Pascal, Hector Berlioz, Guy de Maupassant and Van Gogh.

In the next article I will talk about the management of epilepsy, especially as regards schoolchildren, and here one may say that it not only affects their education but their subsequent occupation as well.

Staff Efficiency

(Continued from page 171)

Where equipment of special importance is concerned there should be only one rule. Nobody but authorised workers must use it or touch it. There should be rigid adherence to a rule for dealing with electrical equipment: no "first-aid" by any but a trained "charge" hand.

One of the interesting items of information noted in the book mentioned earlier was that to meet the increasing charges of preparing and serving food, sums of 7d. or 1s. 2d. had to be added to the "costing" of the more formal meals. The "self-help service" which prevails in so many canteens and big restaurants helps to minimise costs, but it is easy to see how costs are reflected in service which so many of us take for granted. (There is the satisfaction of knowing that those who minister to the large public compelled to eat "out" are not dependent on the good will or temper of their "customers.")

In our schools and colleges the same expenses are encountered though not allocated in the same manner. If we are really concerned — and we must be — it is only by skilful planning of service that we can minimise costs. Non-resident help must be trained and used to the best possible degree. Some schools pay a fixed sum each evening to the helpers (paid weekly, of course) and the meals entailing much washing-up are balanced by those which are simpler to serve and take less time. A "leader" of a team can do much to expedite work, but speed must not be mistaken for skill. Sometimes it is combined in one person and one can quickly check up on those who are better at one type of work than at another and those of all-round ability. The over-60 clubs often provide a group of willing workers who like to extend their pensions by a legitimate piece of work in the evenings. They enjoy the group work—the warmth and interest of the behind-the-scenes atmosphere, and in their clean aprons and neat attire have solved many a problem for short-staffed kitchens with their cheery service.

One feels that every means of preventing waste must be explored, and by waste one implies misuse of time and goods of all types. But it isn't merely money which makes possible the gracious life we would like our young people to enjoy and that demands something which cannot be bought.

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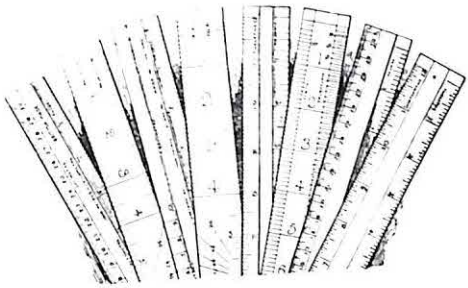

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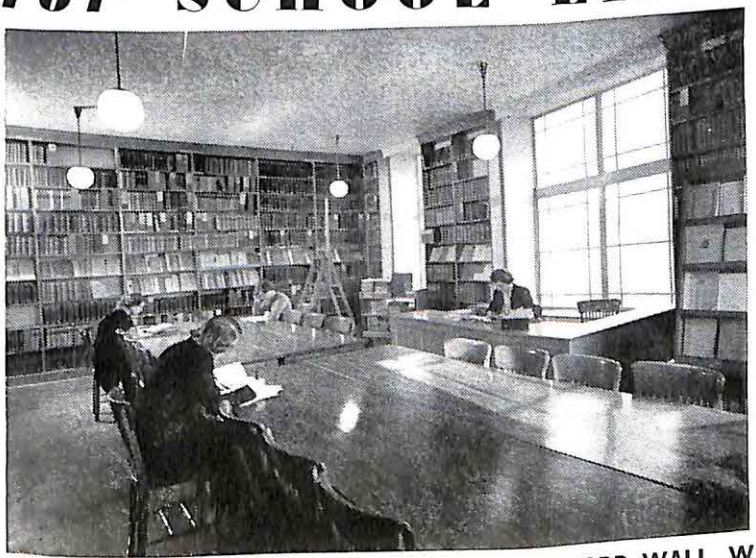

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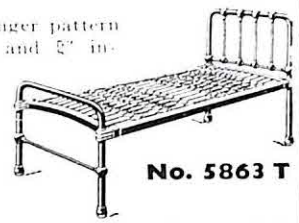

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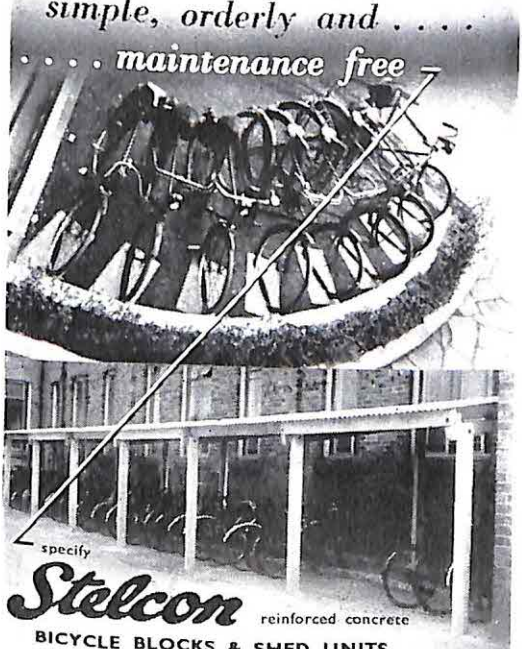

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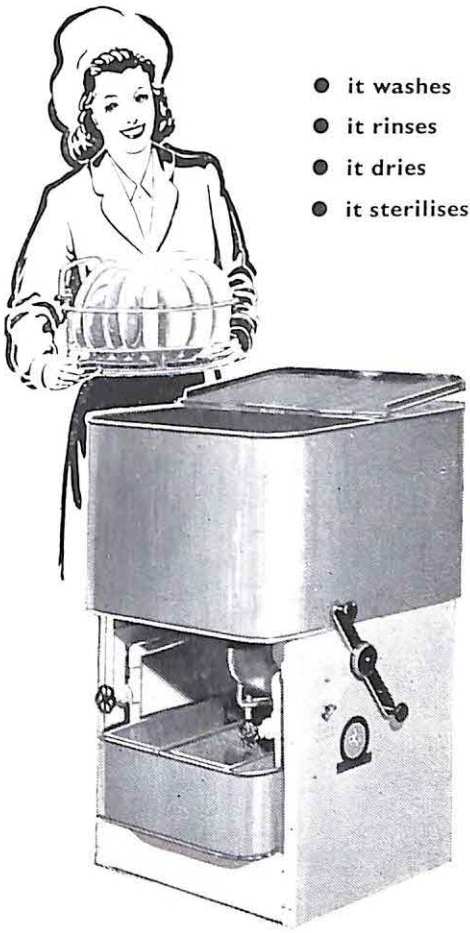

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 5. One Shilling and Sixpence May, 1953

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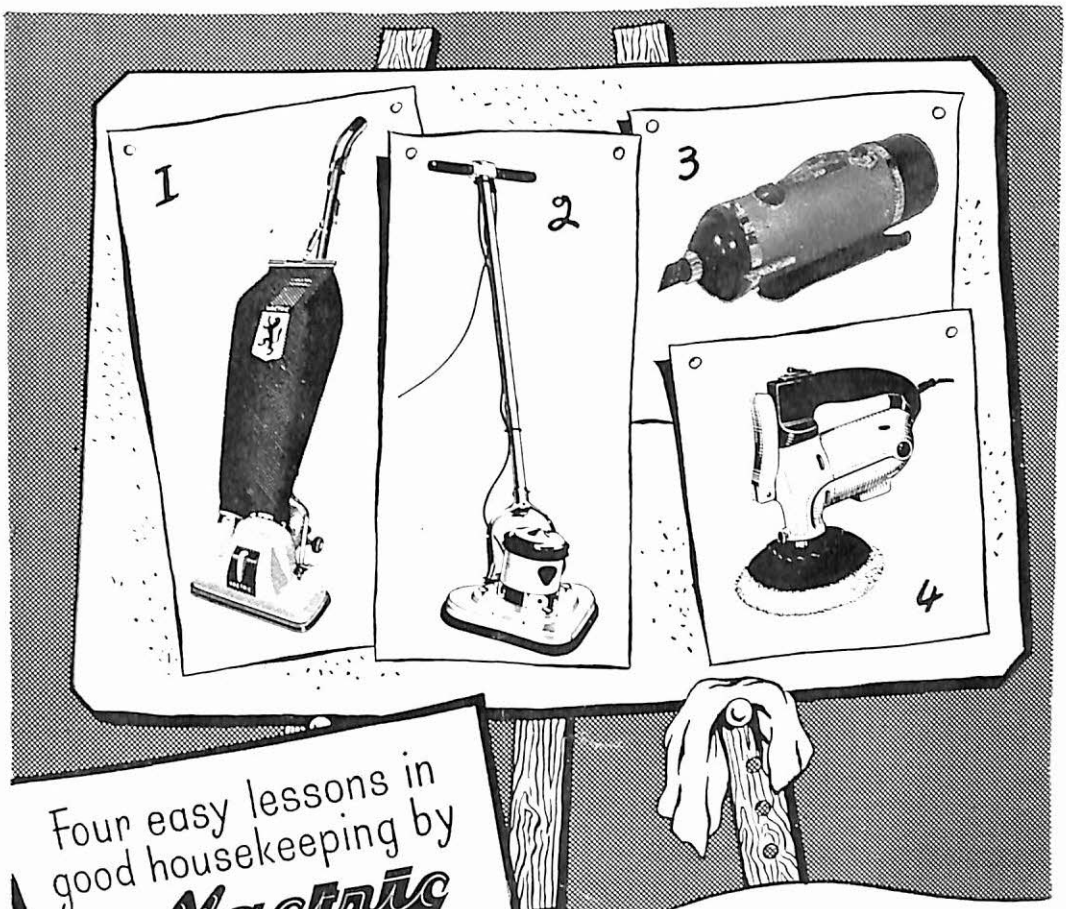

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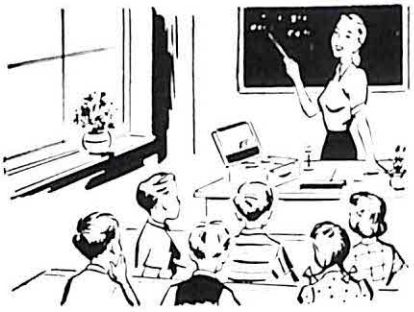

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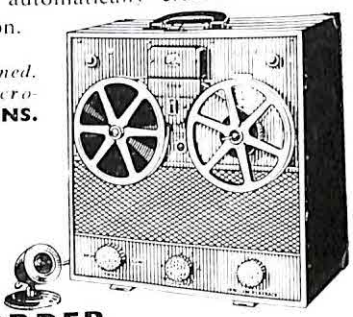

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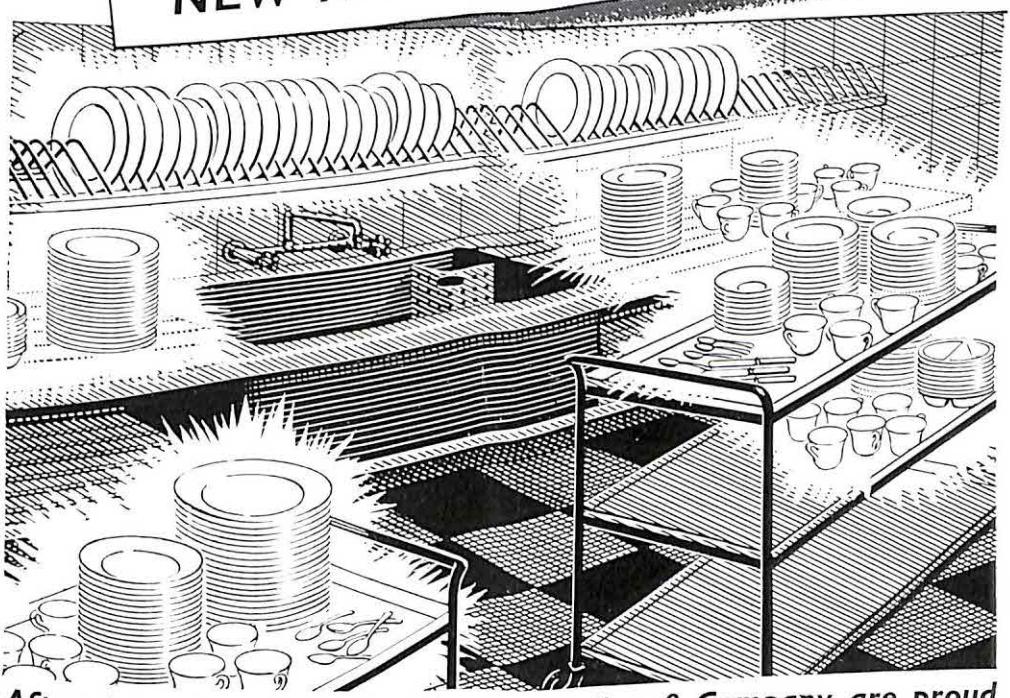

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13 No. 5 May, 1953

CONTENTS

How Television Works in American Schools—*a new UNESCO booklet that has much useful advice for those interested in educational television programs* 191

"Philadelphia Story"—*this chapter, reprinted from "Television and Schools," describes how a group of schools in the U.S.A. planned, produced and broadcast their own programs* 193

Can School Buildings be Brighter?—*C. L. Berry describes a new colour scheme launched by the Ministry of Education to encourage schools in the right and bright use of colour* . . 194

All Things Considered—*by F. A. V. Madden* 198

Dr. R. E. Smith, Consulting Medical Officer, Rugby School, continues his series on **The Management of Epilepsy** . . 199

Craftwork with a purpose—*Mr. G. Ladell tells how his own school, Abottsholme, have planned work in the carpentry shop to produce anything useful—from a toolbox to a desk* 202

Planning a model-making club—*Eric Bruton contributes the second article in our series on organising school societies* . . . 204

When Running a School Estate—*can we expect to make a profit? asks The Bursar* 208

Vitamins by slot machine—*Doreen Davies reviews ideas in food seen at the Ideal Home Exhibition* 211

Camp Cookery—*Some do's and don'ts for those cooking under canvas this summer, by Mrs. Elizabeth Midgley* 212

And some very unusual ideas for school meals from Prof. Mottram, including **Seaweed on the Menu** 213

New Equipment 215

Continuous cloches can be a valuable aid in the summer garden, *says W. E. Shewell-Cooper, MBE* 216

Textbook Review 218

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HOW TELEVISION WORKS IN AMERICAN SCHOOLS

UNESCO have recently made a major contribution to the problem of how to make best use of television as a teaching aid, with publication of this booklet describing how television broadcasts to American schools were planned and produced, and the results they have achieved.

OUR pupils, sometimes fortunately, are not unduly aware of the quality or performance of the machines and labour-aids we install in our schools. There is little comment, few feelings of shame among the young, when the old school is found to be lacking in an up-to-date mechanical mincer. We recently heard, however, the utmost scorn being poured upon the managers of a certain school because, among the amenities they had chosen to offer the pupils, they were so benighted as not to include a television set.

Undoubtedly whether we are aware of it or not, there is a rapidly increasing group of young people—as young as five and six years of age—who have come to regard television as one of the major pleasures of life. This assumption, that an hour or two of television a day is not only enjoyable but is practically a necessity, has provoked an inevitable reaction, particularly in schools. A lot of us are "again it." What with the coming of three-dimensional films, and the upsurge of interest in television in Coronation year, some of us are feeling that there's quite enough in the way of visual experience about without our providing more. But, sooner or later, if we have not done so already, everyone asociated with children and with schools will have to give serious consideration to the part television is playing, and could play, in the lives of children to-day.

Parents have already discovered that a television set in the home can be as interesting to the children as the most popular of uncles, and keep them much quieter. Newspapers, the cinema, sound radio made little or no impact on the younger children; television can draw into its rapt circle the youngest of children. Some schools, we know, have not been slow to realise that a television set can be nearly as good as a housemaster for ensuring quietness after tea. But if television has already entered some schools as a contemporary form of entertainment it will not be long before questions arise as to its educational value as well.

There could not be a better starting-point for any such consideration than the recent United Nations publication in the series, "Press, Film and Radio in the World To-day," *Television and Education* by Charles A. Siepmann. The book is subtitled, "In the United States," but it contains many references to television and education in Britain, too. It is, and its author plainly states that it is, only a provisional report. "Only in the United States, as yet, have universities and schools begun to produce and use television for educational purposes" —hence the book's main concern with the United States. But the considerations, and many of the facts and findings, are valid for all countries and all types of school.

In passing, it is worth noting that the French have been quicker than we have in Britain to develop regular educational television programmes. Educational programmes were first transmitted in France in 1945—an hour a week, covering a wide variety of subjects—and suspended in 1950. In April, 1951, educational telecasting was resumed under the Ministry of Education. Two weekly half-hour programmes are now regu-

larly transmitted. But the programmes consist, at present, only of filmed material; there has been as yet no experimentation with studio production techniques in France.

In May, 1952, the B.B.C. began to explore its future contribution to classroom education by means of television with an experimental telecast, on a special wavelength, to six schools in the London area. Readers will remember that this tentative experiment into the realm of classroom television provoked criticism from the Archbishop of Canterbury and others; at the time we published the Archbishop's views in this magazine and some counter-views.

At that time, readers may recall, Mr. J. L. Longland, chairman of the Television Committee of the School Broadcasting Council, asked "no more at this stage than that you should suspend judgment." That is probably still wise advice. This United Nations Report, however, can take us one step nearer to making up our minds; it reports factually and thoroughly upon experiments some years in advance of ours.

One point emerges very clearly from American experience—that the bulk of educational television is never likely to be "live"; we shall be seeing telecast film largely. Educational stations, unless they are being run regardless of cost (and, even in the United States, education has not yet reached that glorious status), must rely heavily on "network" operations whereby the creative work on one station is made available to all as a movie film.

There seems to be little real objection to the fact that what the viewer sees is "canned." But to the adventurous it does seem that television education may not prove quite so revolutionary as they hoped; it may largely be a convenient way of showing what are, in effect, special films. The schools with projectors, and the means of seeing educational films in comfort, may well be justified in holding off from television, as a teaching aid, for a considerable time. For long, television may well be the poorer schools' "school cinema."

Another interesting point arising from American experience to date is the value that television undoubtedly has, not so much for educating children in the classroom, as for educating the public on the subject of education and what goes on, in fact, in the classroom of to-day. The portrayal on the screen of a teacher teaching, and his or her class taking part in a lesson does, in the words of one American parent, "more than endless speeches to show the people what the schools are actually doing, and how effective current methods of teaching are."

In America this use of television to give parents a "key-hole view" of the contemporary classroom preceded and had precedence over the use of television as a classroom tool.

To the teacher the prospect probably appals; to anyone with a wider concern with parent goodwill and understanding this possible use of television seems to have much to recommend it.

In America, it seems, the consensus of opinion appears to be that six school subjects best lend themselves to television "aid." Science comes easily first, followed closely by "social studies" (including government, history, geography). Next comes music, with current events, English literature and art, in that order.

Presumably drawing upon what he has observed in the United States, Mr. Charles Siepmann in "Television and Education" has something very worth while to say about visual education—the acceptance by schools of the fact that the cinema and television do exist, and a realisation that a responsibility falls upon schools, whether they approve of these media or not, to educate their pupils in "seeing." As Mr. Siepmann says: "There has been no conscious, widespread and concerted effort either to harness the healthy and constructive elements of mass communication to the activities of educators, or to cultivate in students a resistance to their more debilitating influences. The world of education has continued to go its own way, bespeaking one language of values, while mass communication has talked, ever louder and more effectively, in a language of, at times, very different qualitative significance. It may well be that this communication of dual values is tending to a form of social schizophrenia. There is at least the possibility that such will develop."

That seems to be well said, and needs saying. We may not, in this country, have proceeded far, as yet, with the use of television in schools. But television is already an important and formative factor in most of our pupils' lives. Our concern to-day is probably not yet with consideration of technical equipment; that may come; but it is evident that we should be concerned with something even more important, equipping our pupils with some standards, with an "outlook," that will stand them in good stead in the future that so very plainly lies ahead.

School and College

"Philadelphia Story"

How schools in one American State produce their own successful television service

TELEVISION programmes intended for classroom use are regularly broadcast in the city of Philadelphia and are viewed by thousands of students in that city and the surrounding area. Thirteen series of school programmes, designed for all grades, are being broadcast weekly over three co-operating stations, which donate the time and the studio facilities. These programs are being viewed by some 40,000 pupils on more than 700 receiving sets throughout the Philadelphia area. All schools within range of the co-operating stations are invited to participate and to co-operate in production, evaluation, and utilisation.

Basic objectives

The purposes for which this venture was launched are:—

(1) To acquaint parents and the public in general with what goes on in the public schools of Philadelphia.

(2) To provide opportunity for teachers and children to become informed and intelligently critical viewers of television.

(3) To provide opportunity for school personnel to acquire practical experience in television programming in the early stages of this medium's development.

(4) To further the art of television as a medium of education and, by trial and error, to increase skill and confidence in its use as a tool of classroom instruction.

Added significance obviously attaches to this and similar experiments in the classroom use of television in view of the reservation, earlier referred to, of 12 per cent of available television frequencies specifically for use by educational institutions. Much information is being gathered which should prove invaluable with respect to the ultimate decision as to the place of classroom television in the over-all picture of educational telecasting. Many regard these pioneer efforts in Philadelphia as the outstanding example of experiment in this field. For this reason we propose to trace in some detail the story of their development from its inception to the present time.

In the summer of 1947, a 30-minute telecast was presented by the summer workshop participants. Philadelphia's Superintendent of Schools appointed a television committee of teachers, principals and administrators to study the possibilities of television in education. As a result of its activities three television stations invited the schools to present weekly telecasts. As in many other instances of the early development of school television, the initial telecasts were not transmitted during school hours, or indeed intended for reception in the classroom. A pre-requisite to classroom reception was the installation of an adequate number of receiving sets, as the pre-requisite to such installation was the conversion of school administrators, teachers, parents and the public to the view that television had something significant to offer. Early broadcasts, therefore, were in the nature of public relations and promotion.

Receivers

Two hundred television receivers had been installed in secondary, and 700 in elementary schools. The types of receivers vary. The usual size is a 17 in. cabinet screen, though some schools which have installed receivers in their auditoriums use a 3 ft. by 4 ft. projection device. The great majority of sets subsequently installed were gifts. In many school communities classes without television receivers have been invited into nearby homes to view the telecasts. At one vocational-technical school the boys in the television course built "repeaters," any number of which can be attached to a receiver. These permit reception in as many classrooms as are equipped. This, it is suggested, may be the answer to institutional television.

Apart from consultation with stations on production problems, this is handled in its

(Continued on page 220)

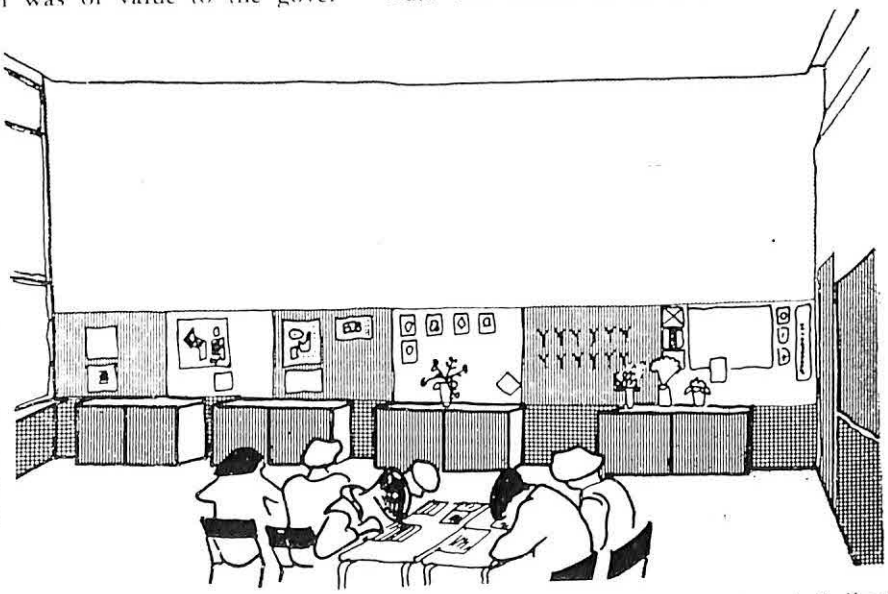
Reprinted from the UNESCO booklet reviewed in the previous article.

C. L. Berry comments on

a new colour scheme to give BRIGHTER SCHOOL BUILDINGS

IT was in 1949 that the Ministry of Education began to issue its series of Building Bulletins, greatly to the interest and advantage of school architects and education officers. The bulletins were intended, as the first number stated, to give guidance on educational building matters less formal than that given in statutory regulations, official circulars and administrative memoranda. It was the Ministry's hope that such a publication would "meet a wider audience than official letters." The bulletins would not, however, serve their purpose unless they evoked an interest in all those people whom architects regarded as their clients. The degree of this general and wider interest has inevitably varied according to the subject of each bulletin. The first bulletin was concerned with new Primary Schools. The second and third—numbered 2 and 2A—were about Secondary Schools. No. 3, on the Supply of Building materials in 1951, could not even claim to be of general, much less of popular, interest. No. 7, New Colleges of Further Education, and No. 8, on some new Primary School plans, concerned Local Education Authorities only. There was much in No. 7, on Fire and the Design of Schools, which was of value to the governors and proprietors of independent schools of all kinds. Bulletin No. 8 described a Secondary Modern School in Berkshire designed on new lines by the Development Group of the Ministry of Education. Now with No. 9, the latest of the Building Bulletins (H.M.S.O., 4s.), the Ministry has produced something of interest to every type of school, public and private as well as direct grant and maintained. The subject is *Colour in School Buildings*. The main parts of this new and quite fascinating publication are its approaches to the Design of a Colour Scheme and the Design of a Colour Range. There are also detailed suggestions for the treatment of individual spaces, colour and lighting, colour and building elements, reference systems and finishes.

Behind this new bulletin is a considerable amount of recent research and experience as well as the little-known results of psychological enquiry. Principles which have now become known in hospitals and homes—though far from winning general approval yet—are officially considered and applied to the needs of the school child and the environment in which he must live and work and play. It is stated as an unquestioned truth that colour is an intrinsic element in

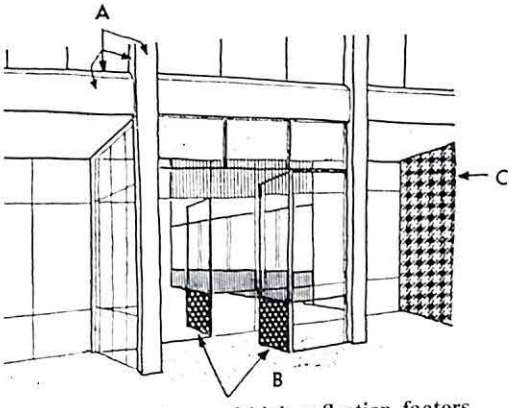


Strong patterns confined to scale of children with plain surface above

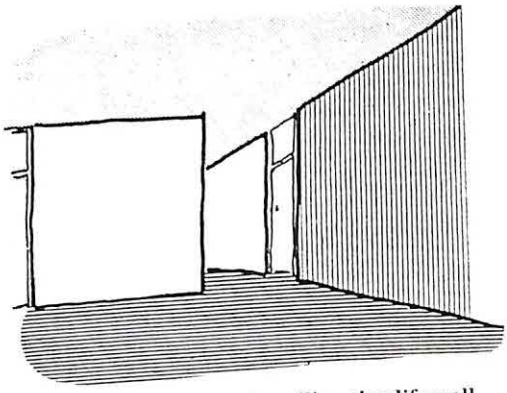
School and College

our environment, whether that environment be natural or artificial. If everyone responsible for the decoration of schools had a well-developed colour sense and knew what was appropriate in schools the new bulletin, as its authors say, would probably be unnecessary. Everyone would instinctively take into account all the requirements of each specific situation, formulate the purposes he wished to achieve and evolve a colour scheme appropriate to those purposes. Unfortunately everyone thus responsible does not possess that sense and things do not therefore happen as they should. The use of colour in school buildings has been conservative, conventional and unimaginative. Often indeed one cannot seriously call the paints used "colours" as children understand that word. For years, for generations and until quite recently, many local authorities were satisfied and content to use one or two colours only for all their buildings—offices, hospitals, clinics, schools, markets and abattoirs. A sickly brown and a deadly dull buff or cream were common combinations. They could until recently be seen in railway waiting rooms. Their use in schools was quite unpardonable. It was a step forward, but not far enough, when brighter colours were substituted for these drab colours, but the idea of one single and therefore monotonous and non-functional colour scheme for each whole school still prevailed.

It is now recognised, or beginning to be recognised, that colour can be experienced in the same way as warmth or coolness, or as sound or rhythm, if its potentialities are properly used. Colour, if properly understood and successfully applied, can do much more than merely provide a covering and a

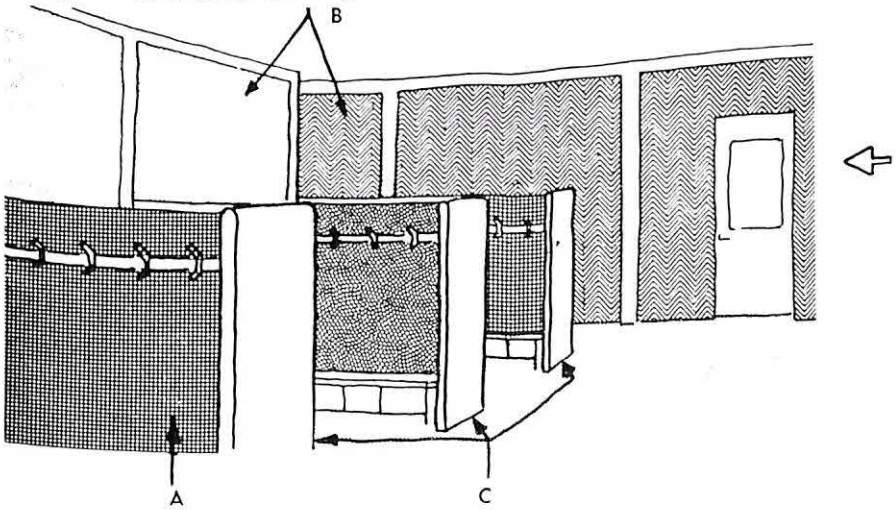


A. Neutral colours of high reflection factors grade down brightness from sky.
B. Strong colours on door panels of small area.
C. Colour with high reflection adjacent to window.



Door frames carried to the ceiling simplify wall shapes and make colour changes more easy.

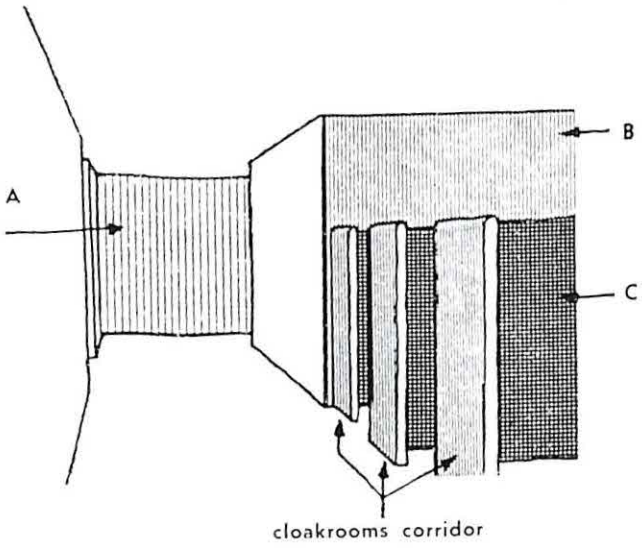
A. Bright colours of varied hues for each panel contrast with full-height walls, and show up fittings. B. Slightly less bright but still strong colours reflect use of space. C. White ends reflect light source (arrow) and bring out colour of panels.



A. Wall at end contrasts with wall at right-angles, but should not be dark at end of corridor.

B. Wall contrasts with one at right-angles and with cloakroom fittings.

C. Colours contrast with full-height parallel wall.



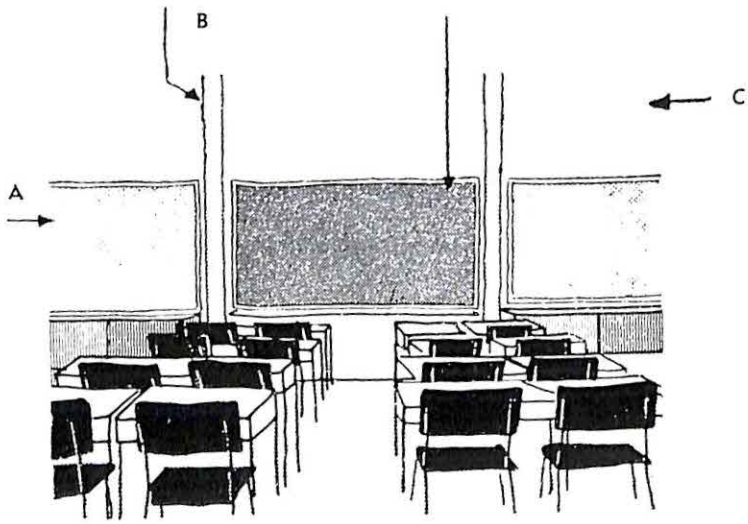
finish to a wall or other space. Colour can make a direct and positive contribution both to the design of the building and to the fulfilment of the purpose that building has to serve. The newest buildings, like the Wedderburn Infants' School just opened by the Countess of Harewood at Harrogate, show a wide range of colours and an imaginative use of strong colours. They make colour play its full part in forming the character of the child's physical environment. It has been found by industrial psychologists that one's daily work is more enjoyable and more profitable when colour is a positive and not a negative element in environment. The same is true of the work, activity and play in our schools. Colour can also influence the children's happiness in school and their taste and feeling for both colour and form in other places and in later years.

The Bulletin describes well the different uses to which colour can be put and the behaviour and effect of different colours. It makes two important points—the need for a methodical use of colour, and the usefulness of a colour range specially designed for schools. Such a colour range—the Archdome (Munsell) Range—is actually given in the bulletin. Forty-seven colours are thus shown, the hues being read horizontally and the values vertically. In its methodical approach to the use of colour, consideration is given to the functions which colour should fulfil. Even in the building stage colour is to be considered. Its use is not merely a final stage in building construction, but colour is a medium deeply influencing most aspects of design. Three functions of colour are distinguished and described. Colour should express the appropriate character of the building, its

A. Avoid showing-up contrast on pin-up adjacent to chalk-board

B. Not too much contrast between pilasters and wall.

C. Wall colour provides gentle graduation to chalk-board.



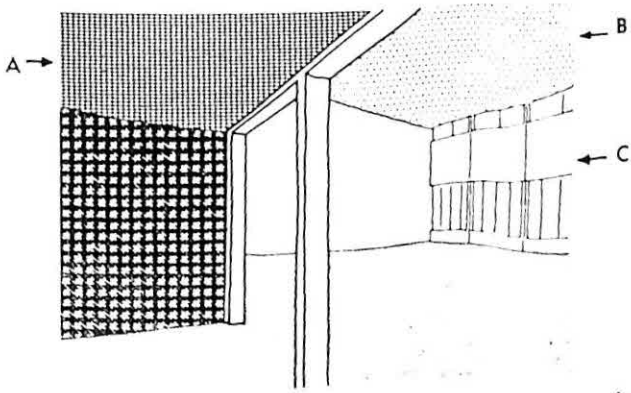
inhabitants and their activities. It should help to ensure comfortable and efficient vision. It should follow naturally from and express the constructional elements and surfaces in the building. Colour is one of the designer's most effective media for arousing an emotional response. It can therefore play a critical part in the expression of character. Surely no educationist to-day will deny the statement that school buildings should satisfy the needs and the characteristics of the children who use them, their gaiety and their energy. Children react spontaneously to bright, cheerful colours as they react, too, and unfavourably, to what is drab, cheerless and monotonous.

Wherever the size of a school allows, different parts of the building are used for different activities. Each of these various activities calls for its own appropriate environment, and its own colour treatment according to the degree of stimulation, gaiety or repose appropriate to the particular room or space. There will be thus many different effects to be achieved. It will be evident to any teacher that a classroom calls for concentration, attention and comfortable vision. An Assembly Hall, occupied for only a short time, should suggest relaxation in a spacious and dignified environment. The dining room should surely be a place of happy fellowship—the Ministry even says that there a note of gaiety and homeliness may be struck. Corridors, stairs, landings are not places of sojourn. Children pass quickly through them and there colour can be used boldly to yield exciting effects. Hence several colours may come simultaneously into view. Hence, too, a further ground for condemning a uniform colour scheme for the whole school, since such a scheme ignores all the distinctive and special needs here but briefly summarised.

" Strong contrasts of activity and character within one building need to be brought out and exploited, not blunted and subdued by the general colour treatment."

So the new principle is expressed by the Ministry's Development Group. Colour can clearly express, exaggerate, make insignificant or even camouflage the arrangement and surfaces, walls, windows and doors.

The detailed suggestions for individual spaces, appropriate as they are to all types of schools, deserve to be widely read and studied. All may not agree with them, but some will be converted. The Assembly Hall, as the focus and common meeting place of the school, should by its colour capture the imagination when one enters it. Considerable contrasts are appropriate and so, too, are brilliant colours. Bold colours should be used in small areas next to large areas of neutral colour, not next to windows. Coloured patterns and even wallpapers are suggested for additional enrichment. White should be the common denominator for such subsidiary elements as door frames. Ceilings as a rule should be uncoloured. In the gymnasium plain walls should be treated with colours of a medium reflection factor. Here a white ceiling is recommended. Each classroom may have its own colour scheme. Colours should be such as will reflect plenty of light and offer varying environments for the many different activities. Contrasts, small in scale and subdued in character, will give life and interest to the scheme. Reference has already been made to the entrance hall and corridors. The Bulletin states that in a main entrance hall a strikingly coloured wall can often set a tone for the whole school. It might be added that school managers and other regular visitors may at first be surprised and even shocked by such a novelty but later grow to appreciate it. The Ministry wisely asserts that in the dining room children will be talking, eating and enjoying themselves. In some schools even to-day this is not true, but in all schools it should be. Surroundings, with small areas of strongly contrasting colours and large areas of light ones are appropriate.



A. Dark colours in low entrance lobby to contrast with larger and lighter hall.

B. Coloured ceiling in higher space.

C. White on walls and between windows to reduce brightness contrast.

All Things Considered

by F. A. V. MADDEN

IT was in the issue of last December that I wrote a paragraph on the new Army boarding school, Welbeck College, Worksop, Notts, which is to open in September next. The College will provide a two-year course which, while it includes general instruction, will place emphasis on mathematical and scientific subjects with the aim of producing candidates suitable for Regular Commissions in the Technical Corps, and of qualifying the boys for admission to the Royal Military College, Sandhurst. The opportunities offered in magnificent surroundings (a large part of the main block of Welbeck Abbey), should attract a large entry of the right type of boy. I was a little surprised that only 203 boys applied for the first entry. Of these 48 have been selected. Among these I am glad to say is a boy from my own school, and one who otherwise would have had to leave school at the age of 16 and earn his own living. Apparently the response of schools in the North was disappointing and caused the authorities some concern. This, too, seems curious as I have always imagined that the North knew a good thing when they saw it, and surely this *is* a good thing. Perhaps the opening of the College was not sufficiently well advertised in the North. The Headmaster, Mr. D. A. Rickards, whose own school was Sedbergh, is a Yorkshireman and he will probably put this right before the next batch of entries for January are selected. Twenty-five vacancies are offered for this entry and applications must reach the War Office by June 1.

The Times does great service to education and it is a great pity that its price prohibits, as it must do, a great many members of the teaching profession from taking it regularly. The Educational Supplement is, I suppose, much more widely read than the parent paper. The occasional supplements which *The Times* presents to its readers may vary in general appeal, but there must have been very wide appreciation of that given with the issue of Thursday, March 12 last. This "Careers in Industry" Supplement which included articles by the chairman of Unilevers (Industry's Recruitment Needs), the Headmasters of Rugby and Portsmouth Grammar School, the Headmistress of Sherborne School for Girls, the Careers Master of Dulwich, the Director of the Public Schools Appointments Bureau, the Director-General F.B.I., and other leading industrialists and educationists, gave a most valuable survey of present needs and opportunities. It should be acquired, if that is still possible, and read by all who are concerned with employment — the parents, teachers, pupils approaching school-leaving age, and not least by all that vast body of non-professional critics who are quite sure that we are educating the nation's children too much or too little, with disastrous results to themselves and the jobs they undertake in the world beyond school. Incidentally, have you ever been accused of educating a boy "above his station"? (Yes, the phrase is still in use). I have. It was one of my proudest moments.

* * *

I MUST say that the carrying of the Simplified Spelling Bill, which obtained a second reading by a majority of 12 in a total vote of 118, rather shook my faith in the Mother of Parliaments. The former Parliamentary Secretary to the Ministry of Education, Mr. Chuter Ede, described it as the worst private member's bill he had ever seen. I do not doubt the sincerity of Mr. Follick, Mr. Pitman and Mr. Gordon-Walker and others who seek to restore flexibility and liberty to our spelling, and (more important) to tackle the problem of illiteracy, though I think this problem has been exaggerated in the Press and in the Parliamentary debates. No one can be complacent about the number of children who leave school unable to read and write but Mr. Follick's measures to remedy this do not commend themselves so far as I am aware, to either the Ministry or the teaching profession. It is difficult for the teacher of English (and that is what we all are, whatever our subject) to see how it is going to help him (or his pupil) to have to teach

(Continued on page 210)

the management of EPILEPSY

Dr. R. E. Smith concludes the article in last month's issue on caring for the epileptic child

SEVERAL years ago neurologists began to talk about "The Epilepsies" because there were several causes. When it was not possible to find a cause like a tumour of the brain, an abnormal chemical constituency of the blood or an injured brain, then the epileptic about whom we have been talking was called idiopathic, and even of this there is a fundamental cause and the contributing factors. The fundamental cause is a peculiarity of the nerve cells that they can be stimulated abnormally. I think the analogy of proof spirit and gunpowder is a very good one. Proof spirit is a mixture of 57 per cent alcohol and 43 per cent water, and if this is thrown on to some gunpowder and a light applied the gunpowder will still burn, but if there is less alcohol and more water then there will not be an explosion, where as if there is more alcohol and less water then the gunpowder will burn much more quickly.

The ordinary brain is not liable to explosions, but the epileptic's unfortunately is, and the aim of treatment is to reduce this explosiveness or, as one may say, to dampen down his gunpowder. We do not know exactly what makes the brain cells of the epileptic more liable to explode, but it must be a chemical reaction, and future research workers will discover what this is, and nowadays it is possible to reverse a chemical reaction if one knows which way it is going. It is obviously outside the scope of this magazine to give any details of drugs, but it is important to mention that great benefits have come from drugs, and again the gunpowder analogy is useful. Many parents will say: "Need he have drugs?" The answer to this is that he must have something to restore his nerve cells to the same state as normal people, and whether one calls it a drug or not really does not matter, but again it is probably best to be quite honest with people and say that they are having drugs.

There are contributing factors which are:

(a) *Emotion.*—There is no doubt at all that some people will always have an attack when they have to do some particular act. I remember very well once examining a boy who completely lost consciousness but came round very quickly. He told me he always did this when he went to see a doctor, and he had had expert medical advice about it. He came under my care several times, and seemed to have no repetitions when he was ill, but if he came for a routine matter and a stethoscope was produced he had one of his attacks.

(b) *The Periods.*—In girls epilepsy often has a relationship to the periods, occurring often just before them, the importance of this is that knowing this to be the case extra dosage may be necessary.

(c) *Infections.*—Occasionally children are perfectly normal except when they get an infection, when they will have one or even a series of attacks.

(d) *Over Breathing.*—This is usually artificial and may be a useful means of observing an attack. The child who has several petit mal attacks can usually have one induced after he breaths as hard as he can in and out for a minute, this is sometimes used as well as another one where excess water is given and a drug paturation as well.

(e) *Family History.*—I have put this in here because it is important, but it is not nearly so important as the layman thinks. There is no doubt at all that if one takes a number of epileptics one finds many more in their relations, but if one puts it the other way, that out of every ten near relations to an epileptic only one is liable to be an epileptic, then the significance is put in the right proportion.

So far in the discussion I have tried to show that although epilepsy is a most undesirable condition yet one can be hopeful, certainly as regards the mental achievement and certainly as regards life.

Treatment aims to remove causes, including contributing cases, and restoring by pharmacological means the brain cells to a normal state. It is important to avoid emotion and infections, and it may be said without any doubt that the healthier a person is the less liable he or she is to epilepsy. It is, of course, quite impossible to practise the old advice that parents should be careful in the choice of their parents. Emotional strains should be cut to a minimum, infections nowadays are usually dealt with much more promptly and with anti-biotic drugs are usually quickly curtailed. The child who has had an attack during a fever may produce them later in life, and if one does get a history of attacks during febrile illnesses, or when a child does develop epilepsy in adolescence, then active measures should be taken straight away.

I have used the word management rather than treatment, because one must remember that management means much more than drug treatment, certainly in schools. The school doctor will always do well to have the advice of a specialist, for the responsibility is very great, and very often a parent is willing to give information to a specialist which he is not willing to give to a school doctor, especially if the parent thinks that by giving that information he is jeopardizing the chances of his child staying at school. I remember a parent of a boy telling me quite firmly and without my asking that there was no such trouble on either side of her family, but later she told the consulting physician that two cousins had had epilepsy. Fortunately the boy did extremely well and followed a career in a profession from which epileptics are usually rigorously excluded.

The school medical officer has a double duty, first to his individual patient and secondly to the school, and I have been fortunate in having an understanding Headmaster and Housemasters who always took the line that any boy who developed epilepsy at school was kept on if possible, always provided that he took first-class advice about treatment. There is, however, the boy who is an epileptic, and is known to be so before entry. Here again the school has been very generous in that if a boy has been entered for any length of time, and he has been having efficient treatment which has kept his attacks more or less under control then he is not refused, but it is quite obvious that no school will say that they will take all the epileptics, and certainly no school wants more than one or two per five hundred, which is probably about the general proportion in the population.

In the management it is most important to start on the right foot with parents, they should certainly be given the choice of consultant. Without in any way detracting from the National Health Service, most parents who are sending children to a school where they are paying should be able to afford to get the best advice about epilepsy. I probably would not have mentioned the question of fees if Dr. Lennox had not pointed out in his book that parents tend to be neglectful. He says that a parent who had spent seven hundred dollars on patent medicines said he could not afford to pay the doctor, and he quotes others who obviously could afford to run an automobile but not consult a specialist. Needless to say the school doctor would always be able to get advice under the National Health Scheme, but if a parent wants to have half an hour with a consultant and get all her queries cleared up then it is probably much better to see a doctor in his consulting rooms.

First aid for epilepsy

The first aid for epilepsy has not changed: "The sufferer should be placed on his side, movements should not be restrained, but coats should be placed under his head and beneath his shoulders to detract injuries of these parts from muscular contractions. A knotted handkerchief may be inserted between the teeth to prevent the patient from biting his tongue." This is more or less the exact advice given by Clement Dukes in 1905. If the advice had been followed possibly more epileptics would still have good teeth, for undoubtedly much harm has been done by trying to force objects like cylindrical rulers between the teeth.

Drug treatment plays an important part, and there are four standard pharmacological remedies. Bromides were introduced in 1857 and are now little used although before other drugs were used they were certainly useful. They have the great disadvantage of producing rashes and making patients unduly sleepy. The next drug which was introduced was phenobarbital, in 1912. Its toxic effects are much fewer, although they are still present, and it is very often an efficient drug in the treatment of grand mal. It is usually taken once or twice a day. With a specimen of over-proof spirit one had to find out how much water was to be added until it became proof spirit, so with the hyperexcitable brain one has to find out by

trial and error how much of a drug is necessary to reduce the brain to a non-explosive state. Here one might point out that the time the drug is administered depends to some extent upon the time of day when an attack occurs. If the patient has had, shall we say, three attacks which have always occurred in the evening it is probably much better to give the drug so that there is a high concentration in the evening, whereas if the attacks have occurred at various times then it is probably better to supply the drug so that there is an even distribution throughout the day.

Parents, once they know that one is sympathetic to their child's illness, and that the sympathy extends to the schoolmaster and to the employer, will tell of attacks which occur at night, etc.; without this information one is often misled and the patient and parents are probably deceiving themselves. Phenobarbitone sometimes produces a certain amount of sleepiness, and if this is so one should use a third drug. Phenytoin sodium is the official name for what in England is usually called epanutin. This was introduced in 1937, and is a good example of how some drugs are introduced. A large number of chemical substances were taken and all were tested to see which would reduce the excitable nervous tissue, and it was found that this drug whose chemical name is sodium diphenylhydantoinate was the best. This is now called epanutin. It is excreted rapidly, and therefore dosage must be maintained daily or twice daily, or perhaps three times daily. A day must not pass without it being given if one wants to get the effect. Over-dosage does cause symptoms such as unsteadiness of gait, swelling of the gums and over-growth of hair, and it may come on at any time.

A girl of 23, who has been taking the drug for ten years, during the last few months gradually got so that she could not walk without falling. She was knocked off the epanutin for a week and then quickly recovered her steadiness. The great beauty of the drug is that it does not produce sleepiness which phenobarbitone occasionally does. If a person gets sleepiness with phenobarbitone the usual practice is to lower the dose and to combine it with epanutin.

There are always new drugs coming in which have to establish themselves. Tridione was introduced in 1945 and is particularly useful for children with the petit mal type. This is, of course, a great advantage, because although the others have a good effect upon grand mal they very often have the minimum effect on petit mal. Here electroencephalogram is of great value, for it shows the characteristic wave formation. Enough has been said to show that correct dosage is not possible without keen observation.

The proof of any treatment is shown by a reduction in the number of attacks to an absolute minimum and the maintenance of a standard efficiency whether this be in education or industry. I have already said that in my experience children who have developed attacks at school and children who have come to school with previous attacks which have been so small that the school has accepted them, have had, on the whole, little difficulty in maintaining their place. Dr. Lennox also mentions that in the university of Michigan of 70 epileptic students who entered the university one half graduated, a record equal to that of all college students. He continues: "The Student Health Service played an active part in helping the seizured students to meet their psychological problems."

One question which is invariably asked is whether the epileptic should be allowed to participate in routine exercise. The answer is, yes, for there is certainly less liability to attacks when a child is active. Why this is one does not know, but it is probably bound up with the chemico-physical changes which induce epilepsy, certainly in all the cases that I have observed none have been excluded from routine games, and none have had attacks during games. The electroencephalogram of epileptics usually shows more abnormalities when the person is asleep even if a seizure does not occur. It is probably much better to allow people to carry on where there are other people present, rather than to let them mope about, for example, I have never excluded swimming, because at Rugby there was always somebody present who could rescue a boy if he did have an attack in the water, which, as I have said before, is very unlikely.

The future of the epileptic

The future rather depends upon the results of treatment. At the beginning of treatment parents very often ask: "How long has it to go on?" The answer varies, but most people will agree that if treatment is doing no harm it is probably better for it to continue for eighteen months to two years after there have been no attacks, and even then it may be justifiable to carry it on. Parents once they have got used to treatment sometimes object to it being reduced. When one reads any account of the problem of occupation one does get a little depressed, but one must agree with Dr. Lennox when he says that occupations which

(Continued on page 217)

CRAFTWORK

planned with a purpose

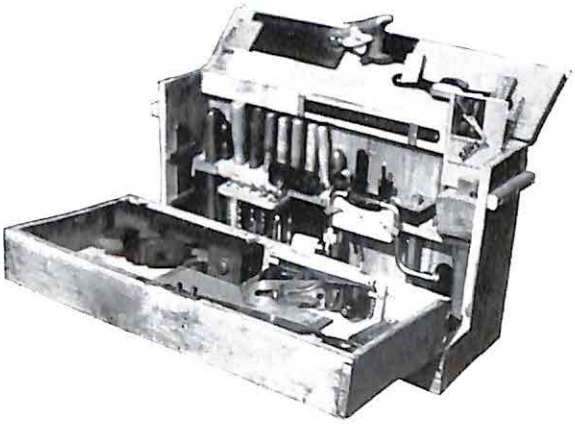
WOODWORK is taught to every boy in Abbotsholme School, where there is an age range of nine to eighteen. A subject like this is often thought to be popular with boys and therefore easy to teach. No doubt in some cases it is. But not every boy is a born craftsman, nor does every boy like the subject. To some it is a complete bore, and to others it is too much like work. There are many other problems like these and they must be overcome. The most successful method is development of interest and encouragement to work for the final joy and satisfaction of the finished article. When this essential attitude is achieved, progress in teaching can be made.

My scheme of work is built on learning the basic joints of the craft. Not only is it necessary to develop the correct use of tools, but also the practice of learning and making the main types of joints, and using them in the models that are made for practice. Each model must also be interesting and worth-while to make. Too often boys ask "why?" If it is just set as an exercise and has no purpose when finished it may seem like wasted effort to them. Yet to select objects suitable for boys with an age range from nine to eighteen is no small problem. Starting so young gives them the opportunity of becoming familiar with tools and materials before they enter the senior school, by which time they are then able to start making bigger models, thus achieving the satisfaction of creating something useful from the early stage. With young boys there are many problems and disadvantages; they are often too small to reach the benches and have to stand on boxes from which they fall off if they are not careful! Quite often, too, they have insufficient strength to use the full-sized tools, and again they are unable to use the tools accurately. A special scheme, and particular care is therefore essential in the beginning.

The seniors, beginning at eleven years, start on a more constructive scheme. Model

School and College

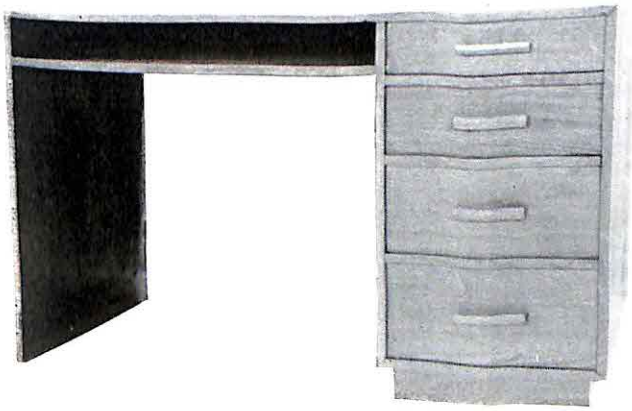
George A. Ladell tells how woodwork practice at Abbotsholme School is planned to give boys something interesting and useful to make



practice joints are made before other models are tackled. When several basic joints have been made satisfactorily the boys continue with useful models which include a certain joint. Several models are made from a "process sheet" following instruction step by step. Later, however, working drawings are made by each boy; they are able by this method to visualize the model before work is begun. The measurements are decided upon, as is the type of wood to be used, and so the articles are more familiar to the boys when the actual job is started. Alternative suggestions in design have often been created in this way, while the model is still on the drawing board. This method over the past six years has proved very successful. I find it develops interest and increases the degree of accuracy and thoroughness in the work. Each job is then executed by each boy from the drawing board to the final polish.

A very important feature of Abbotsholme's workshop life is each boy's possession of his own tools. From the beginning each boy has his own small set of eight to ten tools. These are adequate for the scheme of work arranged up to the fourth forms. In the fourth form, at the age of fourteen plus, they begin making their own tool box. This is the height of satisfaction and achievement that every boy wishes to attain. When it is completed they then have a much larger set of tools, including a good range of chisels, and both metal and wooden planes, etc. All are of the finest quality. The tool box idea is, for a school of boys of these ages, rather unusual, and I have not heard of this method being used at any other school. It could well be adopted, the only disadvantage being the expense. The cost for this complete set is approximately £12 to £14, which sounds a lot of money to spend on a school boy, but with a sound

(Continued on page 205)



These photographs show the high standard of craftsmanship at Abbotsholme—where the boys tackle anything from a tool-box (above) to a desk

planning a

Club for model makers

Eric Bruton contributes the second article in the series "how to start a club"

ALTHOUGH it would be unwise to tell them so, boys (and girls, for that matter) can learn more about a subject in a week if it is taken up as a hobby than in a term if it is a "subject." When interest is the driving force, a duffer in class sometimes turns out to be a sound worker in a hobby club. That alone might be an inadequate reason for starting a club. Much more important is the fact that it gives a boy a craft to be absorbed in, which may prove valuable to him in later life.

I feel very strongly that any inclination to display or appreciate craftsmanship should be given the utmost encouragement, for the hidden wealth of the country is in the hands of its craftsmen and too few youngsters are taking the places of the old craftsmen. Almost every industry depends essentially on a few highly skilled men who produce its designs, patterns and tools. Some industries only exist in this country in preference to another because the craftsmen are here. If the craftsmen go, so does the industry.

All this may seem a very broad basis on which to offer advice on the formation of particular hobby clubs, but, as well as teaching, I am concerned with a craft industry that is utterly dependent on a good intake of keen young apprentices. Suitable boys are getting harder and harder to find as they are attracted away by unskilled jobs in which the initial pay is better. Enthusiasm for a hobby can lead a boy into the kind of work which he will enjoy and at which he will excel.

Choosing the right instructor

Before even thinking of starting a club that teaches a craft, one must have a willing person in mind who is available and qualified, to take charge. Supervision alone is unacceptable. A knowledge and appreciation of craftsmanship are of supreme importance and probably of greater value in inspiring club members than a display of personal skill.

Tools and the location

Many craft clubs have already been introduced into schools, and among those that are most popular yet offer excellent training in hand work are three that are basically similar—model aeroplane, car, and boat clubs. In each case, alternative types of work can be the object of the club, producing working models or producing scale models. Working models offer the strongest attraction, but need the greatest selection of tools and equipment. The location of the school also has some influence on whether they are a practicable proposition. It would be futile to build working models of boats, for example, if a pool is not available. The school playing field is admirable for flying model aircraft, and if the presently popular control line flying is made the object of constructors only little open space, say a circle of 200 feet diameter, is necessary. For model cars a suitable hard-surfaced track is required. I know of one school where a model racing car club has a track in a corner of the playground. (For the information of the uninitiated, the cars are tethered to a central post and run around a circular track at astonishing speeds; the same system is used for fast model boats. In control wire flying, the aircraft flies around the "pilot" who controls it by means of wires attached to the fuselage.)

The only objection that can be raised to any of these activities is the noise, for the pugnacious sputter of their tiny C.I. engines can be of infuriating persistence to peace-loving neighbours.

The tools and equipment required depend

on what types of models are to be attempted. For miniature waterline ships and other small models like ships in bottles, a table, penknife, razor blade, fine saw, pliers, flat chisel, fine cut flat file, watchmaker's tweezers and fine sandpaper are the only requirements, and the materials—wood, cardboard, odds and ends like pins, wire, beads and glue—are even simpler.

Larger scale models of wood, which include aircraft, boats and transport vehicles, demand little more—some additional woodworking tools and a small parallel jaw vice. Gliders and flying models powered by rubber motors as well as similarly powered racing cars are also constructed with a minimum of tools, especially if bought as kits. Kit mentality is not, however, to be encouraged as it tends to stifle originality and experiment.

Improving tools

As soon as metal work is introduced, especially in connection with C.I. engines, there are greater demands on tools. Many, however, can be improvised—a lead block as a miniature anvil, clamps for bending sheet metal, domes for "raising" metal, and so on. A small lathe or even watchmaker's turns (which are very simple and are operated by a bow according to centuries old practice) are a valuable addition to any set of tools. A lathe is not absolutely essential as an astounding variety of accessories and turned or cast parts for model ships, cars and aircraft are available. Soldering iron, files, chisels, taps, dies, stock and drills and a fitter's vice will certainly be needed.

Hoarding can help here

Most useful of all for constructional work is a scrap box to hold odds and ends like tin tops, clips used around some jars, pen holders, umbrella ribs, cotton reels and the numerous other odds and ends that are invaluable to the model maker. Much of the equipment used is inexpensive and soon introduced by experience or by an experienced instructor. The tweezer type of clothes peg, for instance, is invaluable for clamping together parts while glue is setting. Sticky cellulose tape does the same job excellently.

These and other techniques, such as using the tip of the little finger for spreading gum (as the little finger is not much used and will not therefore come into contact with the work and so soil it), and using shellac under paintwork as well as for finishing, all go with skill and knowledge to make the young craftsman the key man of the future.

continuing

Craftwork planned with a purpose

knowledge of their use and of the subject in general, this amount can quite easily be repaid in the first few models that can be made, not to mention the "odd jobs" that can be done about the house, which so often become an expensive item of the family budget.

The tool box design features dovetail joints. It is a standard pattern made by each boy, but the interior is fitted up to each boy's own ideas; there is usually sufficient room for extras later on, which depends on the boy's own enthusiasm and his pocket. In many cases they undertake holiday work for friends and relations, thus earning a little pocket money. Many boys, too, enter their models made at school in local shows, winning prize money, which can also be used for tools or timber. Frequently boys have their own workshops at home—sheds they have made or converted themselves. They have also constructed benches, either at home or at school, and are now able to tackle almost any job. An interest like this keeps them happily and healthily employed during their long holiday periods.

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When the school runs an estate...

can the gardens be planned to make a profit?

THE problems of institutional gardening are uppermost in my mind just now. Since the war I have developed our market gardens from five acres of poor land and one small greenhouse up to eight acres, seven glasshouses and perhaps half an acre of portable glass in the shape of Dutch lights and grower's barn cloches. From supplying only a small part of the school's vegetables and salads we are now self-supporting in all the crops we grow except potatoes and have an ample supply of soft fruits into the bargain.

Step by step we have reached this point but still the gardens fail to make a profit. It is this fact I want to discuss in my article this month, not from the point of view of a keen gardener but from the Bursar's angle in these tough financial days. Can we afford to run a department at a loss, even a comparatively small one? Here, I must say that we also have our own mixed farm which makes a useful profit, more than offsetting the garden's losses. In most schools, though, there will be no farm and the market gardens must stand alone. It is to these schools I address my remarks for I feel a garden can be made to pay and it is worth while struggling to achieve this. I am aware there are few bursars who would support me and so I will give the reasons for my conclusion by telling about our own development so far and my plans for the future. To be so nearly self-supporting is one prize almost in our grasp; to do this and to make ends meet is the other prize I am sure we can win. Well, here we go.

In "The Gardeners' Chronicle" recently R. E. Thoday, of St. John's College, Cambridge, writes about their gardens and their problems, saying "growing vegetables to meet the requirements of a constant number of people may or may not be so difficult as growing crops to mature over a period of fixed dates—a crop maturing or coming into season during the vacation is food lost in an institution such as this. All the crops grown are planned carefully, and fortunately they do, generally, mature to date; terms do not, however, fit in with the routine and orthodox gardening operations. The rotation of crops generally practised is often abused, as also is the winter treatment of the soil; it is, in fact, necessary to have practically the whole garden full of produce in October."

These opening remarks show, as we soon found, that the school market garden is a thing apart. The success or failure of commercial market gardening in the area is no guide. If anything the school garden has the advantage. The disadvantage of crops having to stand and occupy ground for a period whilst they are consumed by the school rather than sold off in bulk and the ground freed for another crop is outweighed by the certainty of sale and what is equivalent to a guaranteed price. There is no question here of a glut, no market and ploughing into the ground. The number to be catered for is known and although a glut may reduce prices locally there should never be the dead loss others face sometimes. It was soon obvious to us that to get crops maturing at the right periods, in term-time, glass was important. This means long-term capital expenditure in most cases, and if you're not convinced that having your own garden is an asset then you won't go any further than this and decide to put the money towards a new armoury.

In our case we were able to take over permanent glass which was in the neighbourhood of the school, and this may be possible anywhere in the country with big estates and houses being broken up. A walled garden and the usual glasshouses going with it can be rented very reasonably from someone unable to keep them up themselves. There are ways and means if you consider it worth while.

Having got our glass we planned to grow

for the school menu—someone has said "a gardener is in the hands of the cook"—and so the main crops under glass became tomatoes and lettuce, frame carrots and beetroot. We raise seeds, of course, and fit in such things as weekly mustard and cress. We found that if a house of lettuce did come in during the Easter holidays the trade was a ready buyer, and all surplus tomatoes not used by summer schools in August were canned by the kitchen for winter use, and naturally the green ones became chutney.

Getting to the pitch of meeting school needs in green vegetables and salads we found we had time and ground to spare to grow for outside sales. Christmas chrysanthemums fitted in with tomatoes and the fact that we didn't require all our glass for winter lettuce. A range of flowers was planned for summer use throughout the school buildings, and pot plants and spring bulbs for use during the winter. Once it was known we were growing such things a local demand brought a useful cash trade.

Summer conferences being regular August events we began to grow special lines for them. It pays hands down to feed your guests well, keeping them happy and willing to pay a bit more than they would for the next place. Our frames produced melons and cucumbers when they might otherwise be lying idle. Sweet corn was a profitable crop, too. Gooseberries, blackcurrants and raspberries were planted and now give us useful quantities for sweets and jam making. I'm not really in favour of bottling these, preferring to eat them fresh, in season, relying upon the trusty apple for winter use, coming into season one variety after another during those dreary months.

You may say producing winter salads is all very fine, but in the ordinary way you wouldn't pay 9d. to a 1s. each for lettuce ruling it out as far too expensive. It may be profitable to the gardens but at the expense of pushing up food costs. The same goes for the other exotic things you grow. This is sound as far as it goes but the health factor must enter in here on the one hand and a questioning of the term luxury on the other.

There is no proof but slowly growing evidence that the school which is self-supporting in green vegetables and salads enjoys better health. A salad a day the year round is preventive medicine and if it can be lettuce more children will eat it up than if it is raw cabbage. A freshly-cut lettuce, as with a freshly-cut green of any kind, is better food value than one 24 hours old from the wholesaler. Epidemics have disappeared from this school since we developed our gardens. I am claiming nothing, just stating an interesting fact. A school I know of takes all this a step further and makes sure all produce is organically grown, and knowing that has had the faith, or temerity, to run their own fees remission scheme!

It may well be considered worth a small loss to run a school garden for this health factor. Expensive in many ways having the sanatorium full.

When is a luxury not a luxury? We turned an old barn into a forcing room for early rhubarb and mushrooms. A little forced rhubarb can go a long way in February in a flan. During the mushroom period, May to July, we cut out fish and used mushrooms. Fish is jolly expensive as you know and is rarely eaten up by all the children, whereas we found practically no one saying no to mushrooms. The sauce was full of nourishment and made the rooms go a long way. The gardens did well and the difference in cost was negligible. Carefully handled a so-called luxury need cost the school no more than a customary item in the weekly menu whose high price we now take for granted.

All the foregoing we have done and still the gardens do not pay. Slowly I have arrived at the obvious conclusion which Mr. Thoday states as follows: "Piggeries must be considered the basis for success in institutional gardening, for humus is of the greatest importance. Not only do the animals supply the manure, but any surplus produce and waste is also converted into plant food."

I have paid out a lot for farmyard dung over the years. The sums represent our losses. Keep pigs and/or poultry in conjunction with the gardens and you have a profit-making line on its own—the by-products are presented free, the stuff you've paid out good money for.

Add to this venture the lashings of leaves and lawn mowings we all possess and compost them with other waste matter and the animal manure and you should be self-supporting from start to finish.

BURSAR'S CHARIVARI

All Things Considered

(Continued from page 198)

the wrong spelling first and the right spelling later on. Speaking for myself I must confess my immediate and everlasting antipathy to the word "telefoen," and my distress at having my hero, Dr. Johnson, accused of being the cause of all the trouble. Nor, having had some experience of both, can I really believe in the link which many are trying to establish, between illiteracy and adolescent delinquency.

Have I no constructive proposal to make, no plan to help backward readers?

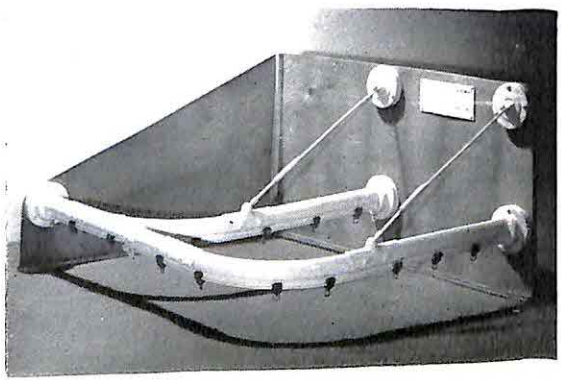
Sey, I evah dna siht si ti.

* * *

AT the other end of the scale we have the problem of the brilliant child and Dr. Eric James, High Master of Manchester Grammar School, has decided and provocative views about this, which he outlined to the Easter Conference of the National Union of Teachers. It is interesting and reassuring that in this age of the Common Man it is possible to advocate an aristocracy of brains on which the whole future of the country depends, and to argue that at all costs the brilliant few must be segregated, nurtured and developed, without arousing all sorts of political passions. It may be that Dr. James appears to overlook what many consider the sturdier virtues of those who are not quite in the top intellectual flight, but when he pointed out that brilliant children are by no means generally neurotic, but on the contrary are more likely to be emotionally stable than the normal and subnormal, he made a point worth making. It is a national characteristic to distrust brilliance and in the minds of many it is identified with all kinds of instability. Dr. James may in this respect have been preaching to the converted, though one doubts if he thinks so. At all events he told the assembled gathering of colleagues that teachers need to be people of considerable intellectual ability and that two-thirds of the teachers in the country could never understand the work done by these brilliant children in the sixth form.

* * *

"HAVEN'T the Governors provided you with a television set?" a friend asked me the other day. "No," I replied. "I suppose you have asked them for one?" I said that I had not, though I was anxious that one should be hired if possible for the Coronation. I must say that I should like any boys who are left at school over the Coronation holiday period to see it on television. To have a television set permanently installed is another matter and I should have grave doubts about the wisdom of that. I have grave doubts about installing one in my own home—and my doubts are not only financial. I read somewhere recently that Bryanston has a cinema-sized TV screen installed so that the whole school can watch. How admirable again for the Coronation or other national occasions, but what a time-waster it could be. I was not surprised to read that though TV was naturally not allowed to interfere with work or prep. (which it obviously does in the home) it did seriously interfere in the later part of the evening with hobbies, school societies, and other spare-time activities. TV is still a comparative novelty and no doubt we shall all learn in time, as *some* of us have with the wireless, to use it sensibly and with discretion. No doubt it will become a valuable asset to education as sound broadcasting has done, but experiments to this end are still in their infancy, and I for one shall be content to wait. Meantime, I must confess that I am rather glad to be free of the responsibility of deciding who should use a television set and when, and what was suitable for viewing and what was not. This is not because I am reactionary and pusillanimous but because I doubt if it would be worth it.



This new curtain runway is made by Thomas French and Sons, Ltd., Manchester. The runway forms a U-shaped canopy over the area enclosed and can be hung from supports on wall or ceiling. The simple design is easy to clean and has obvious uses in the dormitory (for clothes, etc.), where space is a problem.

Vitamins — *by slot machine*

by Doreen Davies

AT the Ideal Home Exhibition in Olympia again this year there were scores of stands exhibiting to their best advantage new foods, new gadgets and new ideas designed to meet our ever-increasing demands for higher standards of food and all the home comforts of life. An exhibit of noticeable enterprise was the mechanical service of bottled fruit juices. The product itself is highly commendable—not only is it really palatable and full of fresh fruit flavours, it is actually pure fruit juice and well qualifies for a place in the menu. The nutritional value is higher than that of ordinary fruit juice because concentrated vitamin C has been added. In terms of health, this means that a bottle a day is much more capable of keeping the " doctor away " than the proverbial apple. A glass of this fruit juice would supply the minimum daily requirement of vitamin C and at the same time provide a school child with a very pleasing, refreshing drink. This fruit juice is sold in small bottles which are hermetically sealed and contain sufficient for one person.

At Olympia the visitors were able to help themselves to samples. In return for a shilling in the slot, a large, attractive store cupboard dispensed a bottle of fruit juice together with a drinking straw. A simple device for removing the stoppers was attached to the machine. People queued to try this novelty and I imagined the success such an automatic tuck shop could be in a modern school—not a poor one, for the machine costs in the region of £300 but I learned that it is hoped that facilities will soon be made for hiring the cabinets.

The dispensing machine will be out of reach for many for some time but the fruit juice is generally available and can be purchased wholesale as well as retail.

Olive oil for cooking

One of the chief advantages of using oil for cooking is that when frying a higher temperature is reached before the oil vaporises and food cooked in it has, therefore, a better appearance. Its flavour is better, too, providing the oil is of good quality. It has been impractical to use oil extensively, the supply as well as being limited has hitherto been expensive or inferior, but at Olympia prominence was given to a brand of pure Italian olive oil now available here at a reasonable price. It is sold in sealed tins in sizes varying from quarter-pint to one gallon. The larger sizes, as may be expected, are much cheaper comparatively. This oil is recommended for frying sweet and savoury foods whether deep or shallow fat is used, and being mild in flavour it is ideal for salad dressings.

Cheese

I was impressed by the efforts of a number of exhibitors at the Ideal Home Exhibition to tell the consumer more facts about their products.

The Dutch cheese stand offered samples of their famous Etam and Gourd cheeses to visitors to assist them in discriminating between the varieties. Those who have been disappointed in their attempts to make cooked dishes with Dutch cheese may be glad to know that the ones with low fat contents are the best varieties to choose for grating. The price is a good guide to their creaminess—the expensive Volreet types (full cream) are fancy cheeses not economical for cooking.

Meat and fish pastes

Judging by the taste samples of a well-known brand, it seems the claim that potted pastes really do contain a high proportion of high-quality meat, ham or fish is no longer an exaggeration. I was pleased about this because pastes are popular with school-children and it is important to feed them, not simply to allay their hunger with bread and a meagre scraping of flavouring. Packed in small family-size jars, these would be a useful addition to tea tables. The smallness of the 2 oz. jar used entirely for packing is no disadvantage, since pastes are amongst those foods which once opened must be quickly consumed, and the small jars permit serving economically a choice of flavours.

Concentrated soups and flavours

New soups in powders, cubes and concentrated liquids made their debut at Olympia. The products in this line which I consider deserve mention here are those prepared by the famous manufacturers of canned and dried milk products. They are marketing several new dehydrated soups.

(Continued on page 215)

Camp Cookery

Elizabeth Midgley offers some do's and don'ts for cooking under canvas

IT was through the determination of a group of young Cubs anxious to learn to cook that my interest was first aroused in camping, or rather camp cookery. Cook, to her secret pride and joy, was persuaded to pass judgment on various culinary efforts and became firm and staunch adviser-in-chief for many years. And there need be no apology made for asserting that learning and observing the elementary rules of cookery can make all the difference to the success and health of camp life. Whether it be a junior week-end camp or a camp meeting for specific work — tree-felling, clearing sites, helping farmers, etc. — some preliminary training in domestic work is necessary. The first time I visited a camp (not only merely as a visitor but as observer) I was amazed to see a youth, wearing dark goggles, Wellingtons or fishing boots, and swaying gently to and fro as he stirred a cauldron of stew to prevent it burning! One gathered stew was a difficult meal to prepare. This meat had been delivered in bulk, was not too tender, and there was only one really sharp knife. The flour thickening had been added, alas, when the meat first simmered, and cutting up onions had been a tearful process. But like a modern Casabianca the cook swayed and stayed, scorched but undefeated!

One night the camp was flooded; the bread was wet; the fire sulked; and breakfast might have been dismal if a small fire had not been prepared and over it, on an iron oven plate, dozens of scones cooked in the minimum of time. Eaten with honey or treacle, scones or batter pancakes can always be made for an emergency, if the simple ingredients can be prepared in advance; only milk and water separate hungry campers from achieving a quickly cooked item of food.

Too much "wet" food—stews and milky puddings—can grow monotonous. Braised meat or fish is quite easy to cook, and if the "tenderness" of the meat or thickness of meat or fish suggests the need for considerable cooking—simmer the steaks in *shallow* liquid (if shallow containers are not available) and cover whilst cooking with lids or plates. When tender, braise the food in fat, spooning the boiling fat over the surface if it is not easy to turn the steaks. Fish slicers—perforated for choice—can be used for every purpose, and this is one. Grease-proof paper is excellent for wrapping up or making packets for cooking such things as kippers, and prevents strongly flavoured foods from percolating their particular odours to other dishes. A few squares of scouring stone help to remove splashes from the tops of stoves, etc., quickly and effectively. Wash the scouring stone after use, especially if strong odours have been destroyed and perhaps transferred.

The store room might have its portion of permanganate of potash in addition to that required by the first-aid box. The muslin bag in which the meat, etc., is guarded might be rinsed through a weak solution of the fluid, and if meat has to be kept any length of time it might be wiped with a swab rinsed in very weak solution. If a meat safe can be improvised and stood actually in a running stream, it will make a good pantry; but food must be covered and watch kept for flies.

Slab cake (home made) is a good stand-by for supper if this is the snack meal—cocoa or milk and cake with a sandwich or bread and cheese for substance. And milk, of course, can be arranged for with the farmer and local authorities at school rates. There may, of course, be additional cheese available too if the work is concerned with agriculture. The Danish and Dutch cheeses are well worth adding to the menu, and as worth-while items of food are not expensive. Parkin — fruit slab cake — plain slab cake (which can be made into a filled sandwich with jam, lemon cheese, or honey) are all useful and satisfying. Cake mixture can be baked for a sweet course and served with jam sauce, milk sauce, tinned cream, evaporated milk, melted golden syrup, fresh or canned fruit juice, etc.

Plain steamed puddings can be varied similarly and there are (in some districts at least) dried fruits available. The ready-prepared plum puddings and other mixtures are useful for emergency feeding, and a few packed with the stores can be helpful. Steamed puddings are often stodgy because the containers are filled with too much mixture, preventing the pudding from swelling. Particularly is this the case when a fitted lid is provided. Sandwich (roll) cases should be sparingly filled. This type of container needs much room for expansion. Irish canned stew and some of the canned meats can be incorporated in many dishes, emergency or otherwise. A preliminary visit (if possible) can help greatly by giving an opportunity to contact village stores or friendly farmers near the camp site, and local advice on conditions for a satisfactory "layout" may be of real value in promoting good relationship between locals and visitors.

When members of the camp are "loaned" to farmers it is important to make certain that food will be available for every midday meal, or alternatively that the camper is expected to provide his own luncheon packet. Conditions vary so much. It is unwise to take anything for granted, and arduous physical labour demands the energising food to sustain effort. Now that sweets are de-rationed it may be possible to purchase once again the sweetened "confectionery" block chocolate. It was produced pre-war quite cheaply by the most reputable cocoa firms in 1 lb. to 7 lb. blocks, and a chunk carried in the luncheon packet is of help in assuaging hunger.

V. H. Mottram searches out some foreign foods that put, among other things,

Seaweed on the school menu

WHAT is your attitude to foods when you go abroad? Do you try to eat *à l'Anglaise* wherever you go, or do you imitate the native folk? It is not at all difficult—at any rate this side of the Iron Curtain—to find dishes within the gamut of English tastes; but when you go further afield it is always wisest to do as the natives do, so long as you are careful to make that square with normal principles of nutritional science.

In this article I am going to move along lines of a conference held by the Nutrition Society and from the more "normal" foods to the ones which most of us would hold in abhorrence. (But let me say as a preliminary if people rub along on a particularly odd and unusual diet it means that that diet cannot be particularly bad.)

First of all the seaweeds. On the coasts of Wales you may meet laver bread, a food made presumably from the red seaweeds. I met it in 1940 in the market at Cardiff. It is sold there already minced and cooked and one uses it as a vegetable. It is brown in colour, dull in taste and to me more of a padding than an interesting food—somewhat reminiscent of spinach, but, at first acquaintance, not so unpleasant as spinach. Schools by the seaside might find out how it is made and try it out on their pupils, but I don't imagine that it will at once achieve popularity. Dulse is a similar food eaten in Scotland. I do hope that go-ahead schools will try these foods out, for I think it is part of education to learn to look upon new foods as an adventure.

In Japan enormous amounts of seaweeds are consumed, for no less than a quarter of the diet is said to be derived from this source. Brown seaweed is incorporated in flour and made into ribbons like Italian pastes and eaten with rice or in soup. This probably accounts for the low incidence of thyroid trouble in Japan, for seaweeds, as is well known, have significant amounts of iodine in their composition.

However, seaweeds are not digestible. The cow can utilise them satisfactorily, but then the cow, in her rumen, carries about with her a whole gallimaufry of microbes calculated to disrupt and digest almost anything and hand on the proceeds to their hostess. The seaweeds' chief sugars are not assimilable by the human gut, and so seaweeds must act in diet mainly as a purveyor of iodine and possibly a little protein.

Carragheen moss (a red seaweed) ought, too, to be mentioned. It is used for making jellies which have even less nutritional value than those made with gelatine. They can be

made a convenient vehicle for milk and sugar. Someone has made a claim that brown seaweeds are a splendid source of vitamin B_{12}. May this prove true!

We all of us adore mushrooms, but it must be confessed that to judge from analyses of them, their food value is practically nil. For years Dr. J. Ramsbottom (see his "Penguin" on the topic) has been trying to convince us that other fungi than the mushroom are worth eating. Of course we are all frightened of mistaking the violently poisonous Death Cap toadstool, Amanita, for the edible fungi. Seeing that it has white gills and a white mantle, it ought to be recognisable and distinguishable from fungi which are benign. I don't suppose that Dr. Ramsbottom will collect many disciples. (Moreover, the few fungi I've tried to eat were, I thought, unpleasant.)

Sprouting cereals

Another type of comestible, eaten in many Oriental countries, is the sprouted cereal and legume. We use sprouted barley for making beer and whisky, but throw the spent grains to the pigs. I don't suggest that we should eat them, but there is a case to be made out for germinating peas and beans, and eating them when sprouted. I tried, during the war, to persuade a firm of canners to experiment with this, but times weren't propitious. The reason for sprouting them before eating is that while dried peas and beans haven't a particle of vitamin C in them, when they've sprouted they are a very good source of that necessity. Why shouldn't the biology class find out the best way of sprouting peas and beans and hand over the results to the cook? When the sprout is about as long as the seed is supposed to be the best time. My trouble has been, in doing the sprouting in the ordinary home, that I seemed to grow moulds at the same rate as sprouts—but perhaps that was my incompetence. Such sprouted legumes must be cooked very lightly, otherwise the vitamin C will be lost. Soya bean, when sprouted, is said to give "tasty products."

Meals for growing boys

Dr. H. M. Sinclair, of the Human Nutrition Laboratory of the University of Oxford, has visited Northern Canada and Greenland to investigate the nutrition of Esquimaux (or do *you* spell it Eskimo, which is the way I prefer?) As Stefánsson pointed out—unavailingly—the Esquimau does not eat pounds and pounds of fat, he wants that for heating his igloos, but he does eat pounds and pounds of seal meat, either raw and frozen, or lightly boiled. Dr. Sinclair says that seven or eight pounds of seal flesh is not considered to be an excessive meal for a growing boy. (Better keep that statement away from the eyes of the British Schoolboy.)

The Esquimau doesn't get hold of "foreign" foodstuffs, except, perhaps, a little flour, sugar and coffee (the last he adores), and these, as Dr. Sinclair puts it, "do not prevent him from remaining in the rude state of health which is necessary for survival in the Arctic." (How much flour and sugar do you eat?) And he goes on: "The Indians inhabiting the forests which fringe the coast of Northern Canada, however, have come to depend very largely on food and liquor supplied by trading posts. For this indiscretion they are paying heavy penalties in the form of rotting teeth and tuberculosis."

I put this in to strengthen what I said in my opening sentences: that it is wise to follow native customs in the way of diet. As a matter of fact I do NOT think that the T.B. of the American Indian is due to his diet, but to inherited susceptibility and his more modern habit of living crowded in huts rather than in tents.

And now for some more unusual foods. Take Nigeria. The yam, cassava and plantain (large banana) are cultivated. These yield mainly carbohydrate. In addition, beans, green leaves and fruit are eaten, and, when obtainable, fish. So they get perhaps half the amount of protein that you and I eat.

Roast porcupine or toasted lizard

As Dr. Nicol (who investigated the diet of a tribe living on the delta of the Niger) said, these people would go very hungry if they did not resort to a miscellany of unusual foods. For example: monkeys, porcupines, the giant Gambian rat, the cane rat, goats, giant snails, dried frogs, palm weevils, snakes and the monitor lizard.

Dr. Nicol doesn't mention termites, but I have just been talking to a medical man on furlough from Nigeria—he is engaged on work on leprosy—and he tells me that termites in season form a regulation dish. It is not the queen termite (as I imagined) which is eaten—though should a nest be demolished she is a distinct luxury—but the flying termite, which at the mating season comes out in hordes and commits suicide wherever you display a bright light.

So you do this, putting a big bowl under the light to collect the corpses. If you are a very pernickety person you remove the wings and fry the bodies. If not so pernickety you leave the wings on but fry

them whole and eat them. If you are not in the least pernickety you eat them raw. Europeans learn to eat them thus.

No meat for the over-3s

I imagine that the supply of termites is seasonal. I am told that the Nigerian native has long periods when food is very restricted in nature—practically cassava only, which is little more than carbohydrate. The father gets most of the meat, the older children and the wife come next in order of preference and the youngest get next to none. The infants, however, are nursed even for three years—so they get some first-class protein. It is the poor little beggars from three years old on who have the rawest food deals. It is they who need good protein for growth. Consequently it is these youngsters among whom sickness is rife.

(I put this in to emphasise that protein, and first-class protein, is essential for the growing boy or girl—milk, cheese, fish, eggs and meat. Nutritional science tells the same story whether in Nigeria, North Canada or Great Britain.)

I have not exhausted the list of odd foods eaten by various odd people; but when I'm inclined to squirm at the idea of Fijian natives greedily eating sea slugs, I remember some lovely oysters I partook of a few weeks ago—the first since before the war. *De gustibus non est disputandum.* The main thing, though, in discussing taste is to see that it doesn't deprive you of nutrition.

Vitamins—by slot machine

by Doreen Davies

(continued from page 211)

The cream of chicken soup is particularly recommendable—it contains no synthetic flavouring or colouring and can be made up much more inexpensively than the home making of this sort of soup. Other varieties of cream soup include tomato, celery, onion and mushroom, all of which would, in addition, prove very useful for making quick sauces. For those who prefer always to make the basis of soups and sauces, I mention the bouillon powder which is invaluable to add beef flavour where natural flavours are rather weak. This bouillon powder sounds expensive at 40s. for 5 lb. but note that only a dessertspoon is needed to make one pint of water into good stock.

New Equipment

New Gas Council Films

THERE are three new films from the Gas Council; the first demonstrates the right and wrong way to use a gas cooker—with Television chef Philip Harben demonstrating. This runs 14 mins. Also for the domestic science class is the twenty-minute film on the joys of labour-saving gas appliances, with Richard Hearne putting over in his usual happy way how not to use labour-saving devices, under the supervision of Gilbert Harding, who could be forgiven for losing his temper at these antics. Of general interest is the documentary on the discovery of how gas can be harnessed to provide fuel and light. It starts, of course, from the days of William Murdoch and his crude backroom experiments, and traces the growth of this "flame of humble beginnings."

Cut Panels

Thomas De La Rue are introducing their Formica Laminated Plastic in cut-panel form. Previously it has been available only in complete furniture, but it can now be obtained for home application on existing surfaces. Panel sizes are 3 ft. by 2 ft., 4 ft. by 2¼ ft., 4½ ft. by 2 ft. and 4 ft. by 3 ft., to correspond with average sized tables. It is available in buff, green, blue, grey and pink. The panels are available either as a 1/16 in. sheet suitable for fixing to tables with smooth, level, unmarked surfaces or ready-bonded to ply or blockboard for older, worn surfaces. 1/16 in. panels retail at 33s., 49s. 4d. and 66s. Bonded panels cost rather more.

School Radios

Hadley Sound Equipments, Ltd., Smethwick, Staffordshire, are showing their full range of sound equipment at the Olympia (London) section of the B.I.F. This consists of a radio/amplifier unit; loudspeakers; floor, table-stand and desk-type microphones, and a portable record player and amplifier—all developed to meet the growing use of radio in schools and the need for amplification in classrooms and lecture halls.

The main unit, the radio/amplifier, is portable, but intended for central installation, with extension loudspeakers to relay sound to various rooms in the building. In addition to radio broadcasts, time signals or messages given through a microphone can be relayed through.

Newly designed is this firm's spherical speaker which has been approved by the Schools Broadcasting Council for use in school halls.

Continuous Cloches

can be a valuable asset in the garden, says W. E. Shewell-Cooper, M.B.E.

CONTINUOUS cloches have been boosted because of their great value in the market garden in winter and spring months. They are, however, just as valuable in the school garden, and in the summer too. The first sowings of turnips in mid-March under cloches will, of course, be harvested this month, but then that automatically releases the cloches for another purpose. They act like magic over spinach, for instance, or over radishes. Put barn cloches over the crops if you want quick growth out of doors, and then a fortnight or so may be saved because of the "trapped sunbeams."

New Zealand spinach has great advantages. It doesn't go to seed. It creeps along the ground and provides its own mulch, and is not affected by the hottest weather. But it is susceptible to frost, and so if it is put out early in May it can easily be cut down by those late May frosts which have proved so disastrous. Sow it, however, under cloches in May, and it grows without any fear of being damaged by frost and will catch up with the normal outside plantings made the third week of May from greenhouse sowings.

New Zealand spinach is the ideal edging plant. It looks very attractive, surrounding the formal border. I have known gardeners to transform their normal bedding-out schemes by using a surround of New Zealand spinach! Its grey-green leaves look very attractive, and because of its growth it needs little looking after.

The cucumber is a very interesting crop to grow under cloches. Normally the Hampshire Giant type of ridge cucumber is grown, but during the last few years I have been growing ordinary inside varieties such as "Conqueror" with great success. These grow well under cloches if the side growths are trained first to the left and then to the right, and so they can be kept under the glass the whole time. I find that the best plan is to lay down sedge peat an inch thick along the cloche rows when the laterals start to develop. The peat acts as a mulch and ensures that the fruits rest on this material and do not lie in contact with the soil.

Cucumbers delight in growing on plenty of rotting vegetation, so if the spot where the plants are put in can be liberally treated with well-rotted compost or manure, so much the better. I usually dig out a hole 12 in. deep, and 12 in. across, and fill this up with compost or well-rotted farmyard manure, treading it well down till it is

about 9 in. deep. The soil is then put back—or at any rate about half of it—being mixed with a good quantity of damp sedge peat. A half-handful of fish manure (a fertiliser with an organic base) is mixed in at the same time so as to give the plants a start. A mound about 3 in. high is then made at the top of each hole, into which the plants can be firmed.

Those who haven't raised cucumber plants under glass will find it quite possible to sow seeds direct into these mounds and to cover with lantern cloches immediately. Afterwards barn cloches should be used, and when the plants start to develop, the best laterals are retained. These can be encouraged by pinching out the growing point of the plants.

It is convenient to grow the cucumbers in rows 3 ft. apart, with the plants as close as 18 in. apart in the rows. The laterals will tend to intertwine from plant to plant, but this, taking it by and large, does not seem to be any detriment and does not seem to reduce the yield. Where the cloches are needed for other purposes, as they sometimes are in July, they may be removed altogether, and that gives the opportunity for the plants to develop from side to side, so to speak, as well as along the rows themselves. The cucumbers like a syringing, even under cloches, but there is no difficulty about this. Remove every third cloche and spray the water under the cloches over the plants, using a solo sprayer with its end in a bucket.

The January sowings of Early Gem carrots will be harvested this month, and the ground should be immediately forked over lightly and have sedge peat added to it at half a bucket to the square yard and fish manure at 3 to 4 oz. to the square yard. A skittering of hydrated lime should then be applied over the top of the soil, and the ground is ready for a sowing of Detroit Dark Red Globe Select or Empire Globe Beetroot. These roots will be pulled when they are young and delicious, to be used in salads, or to be served hot as a vegetable. They make a very good catch crop and enable one to eat the roots when tender.

The new potato—Ninetyfold—is another crop which is harvested in May. This was planted under cloches in February. In this area you should have excellent soil, for you can't grow really good potatoes without doing the ground well and enriching it with plenty of organic matter. The soil will be dry, so give it a good watering, unless rain should be about, and then prepare the ground for, say, tomatoes. Special trenches 18 in. wide and 9 in. deep can be got out, the plants being set in these 18 in. apart, individual bamboos being given to each plant.

It is better to put the cloches into position for a week, so as to warm the ground. Varieties of tomatoes which do well under cloches include Market King, Hundredfold, Moneymaker and Harbinger.

The varieties Puck and The Amateur are very interesting, because in their case no side shoots have to be pinched out, and they produce veritable little bushes covered with good-sized, delicious fruits. They don't seem to be more subject to disease or pests than any other variety and, because they need such little looking after, they do seem to be ideal cloche varieties.

Growing tomatoes under cloches involves no revolutionary principles. It is better, for instance, under cloches, to give floodings occasionally down the trenches than frequent and light waterings. It is a crop that needs regular feeding, and I find that Liquinure Tomato Special is ideal for the job. Feeding can commence when the first two tomatoes are starting to form, and can continue over a fortnight until the end of September. Mulching the soil with sedge peat can be done in June on either side of the plants. It smothers weeds, keeps the moisture in down below, and prevents mud splashing when the watering is carried out.

Management of Epilepsy

(continued from page 201)

carry less than average physical or social hazards are domestic service, stenography clerical or library work, research, writing, music, drafting, printing, wood carving and raising flowers or animals. But when one begins to suggest that epileptics should enter these occupations one is immediately asked: "Shall I entrust my best china to an epileptic?" The answer I would give is that I know a girl who was a waitress in a café for over twelve years and never dropped anything, although despite treatment she had on the average about two attacks a month.

One could find objections to all these occupations, and each case must be judged on its merits, and certainly the raising of animals, which really means farm work, is now a dangerous occupation when agriculture is mechanised, but there are certain jobs which can be done. Perhaps one ought to say that in this country one has educated the employers to take disabled persons who are of course receiving medical care. The epileptic should certainly not be led up the garden path to think that he can do a job

(Continued on page 220)

TEXT BOOK REVIEW

Introducing East Africa

Colonial Office and the Central Office of Information
(London: H.M.S.O., 1953. 12.7 x 17.9 cm. 92 pp. 2s.)

WITH East Africa so constantly in the news, the need for understanding the geography of the region is greater than ever. A sound knowledge of the environment and people is necessary for "boys and girls to see social and political problems in a truer perspective, and give them a sympathetic understanding of other peoples," to quote the Spens Report, and this revised edition of a little booklet first published in 1950 should be most useful in "Introducing East Africa."

Written in a style that is simple and factual, this booklet is crammed full of information about Kenya, Tanganyika, Uganda and Zanzibar. In its 15 chapters, which cover such varied topics as "Places, People and Products," "East Africa's 220 Tribes," "Lions, Elephants, Rhinos," and "The Village Council and the High Commission," a general picture of the area is given, marking especially the progress that has been made in the last century.

There are four clear maps (showing the original exploration routes, relief, communications and commodities produced), a few admirable line drawings and the whole text is profusely illustrated by well over a hundred excellent photographs invaluable in their clarification of the region's geography, physical and human.

This inexpensive little book concludes with a group of most interesting miscellaneous items of information, a selected bibliography and, most important, a list of addresses in this country and in East Africa to whom the student can write for further information as required.

G. H.

The Young Traveller in England and Wales

By Geoffrey Trease
(London: Phœnix House, 1953. 12.5 x 19 cm. 156 pp. 8s. 6d.)

ALTHOUGH many children begin learning the geography of the world by first examining their home environment, having their horizon widened from their own region to the whole of the British Isles before continuing to learn of lands and peoples overseas, it is often noticed that their knowledge of our own country is limited—possibly because it does not appear to have the lure and attraction of colourful lands far away. It is therefore very pleasant to find that the latest volume in the excellent Young Traveller series should do much to remedy this state of affairs.

In "The Young Traveller in England and Wales" we are introduced to two English schoolchildren who, instead of spending their first holiday abroad, find that they have to show their own country to a young South African boy and Australian girl. Originally disappointed, they very soon find that in their new travels—and they really travel the length and breadth of England and Wales, from Land's End to Hadrian's Wall and from Kent to Anglesey—they are having their best holiday ever. While walking on Dartmoor, youth-hostelling in the Lake District, cruising on the Thames, attending the Eisteddfod or visiting a factory in the Midlands, their tour was one exciting experience after another. Their excitement in making each new discovery should surely be imparted to the young reader.

Strongly bound in cloth, with a useful map showing the route taken, this book includes 29 well-reproduced attractive photographs and an index in which placenames have their pronunciations noted.

Keenly interested in a well-written story, the young reader of this book should learn much of the geography and history of the two countries.

G. H.

Trawler Charts for Schools

A COLOURED chart describing many activities of British trawlermen has been sent to about 6,000 public, grammar and secondary schools from the British Trawlers' Federation. Measuring about 3 ft. by 2 ft. 6 in., the chart is designed as a comprehensive survey which will enable teachers to explain simply the essential facts of the British trawling industry. The map is printed on cartridge paper of durable quality.

Drawn on a circular projection, the map shows seas around the principal fishing grounds off Newfoundland, Labrador, Greenland, Iceland, Lapland, Norway, France, Spain and Britain, where modern British trawlers fish. Sketches of twenty popular varieties of fish in their natural colours border the chart. Other sections show: silhouettes of near-, middle- and distant-water trawlers; descriptions of how trawls work; how the British Broadcasting Corporation warns shipping of gales, with a special inset map showing gale areas.

Answers to some frequently-asked questions are printed on the chart. They include: "How big is a trawler?" "How is the catch kept fresh at sea?" "How much white fish do British trawlers land?"

Canteen Cookery

By Jack F. Hampton, A.R.San.Inst., F.H.C.I.

FROM the first chapter of "Canteen Cookery," by Jack F. Hampton, A.R.San.Inst., F.H.C.I., to the last reference in the closing page of the index, the reader is conscious of the fine quality of advice the author has given. The obvious qualifications of a successful catering manager are that he must be a clever and practical cook, a knowledgeable and keen buyer of produce and equipment and be skillful both in using the services of his staff and in using any and all mechanical aids to good workmanship. He must also be able to teach and promote loyal co-operation amongst his workers and stimulate and encourage effort and a sense of responsibility towards their work.

The author affirms, in the introduction to his book, that "a happy team is almost invariably a hard-working team"—no platitude, but a practical philosophy. There is a danger that canteen standards will be lowered by the fact that it is sometimes the only choice between packed meals or hunger.

Such a canteen should aim to give good service and not just to assuage hunger; to keep workers fit and happy is an important task.

The recipes contained in this book are good and varied, and generous in those ingredients which are so often skimped by unwise cooks. No item of preparation is too trivial to be remarked upon, and hints on the various helpful methods of washing vegetables and cutting up meat and fish on their ultimate appearance in the dining rooms, are given. If any reader imagines that these elementary rules should be and are inherent, believe me it is not so!

The wholesale buyer differs in no way from the individual housewife in that his purchasing power is restricted to goods which are available, rather than the special types of a food he would prefer to buy. With regard to frozen meat, which has to be thawed or defrosted, the practice of thawing in warm water is strongly condemned by the author. It should, of course, be allowed to thaw for several hours in a warm kitchen. Fish is defrosted by being placed in a sink of clean cold water and, once thawed, both meat and fish should be drained of surplus water and wiped with a clean, slightly damp cloth. Then it is ready for whatever purpose is planned.

All types of meat and the methods of converting them into the most suitable and savoury dishes are suggested, and "offals" are listed in an impressive manner—25 items—some of which can be used far more than for one savoury dish. In the North (and probably elsewhere) there has been deliciously tender canned liver on sale—a very much appreciated off-the-ration adjunct to our diet.

Mr. Hampton advances the theory that the complaint of lack of variety in canteen feeding is often due to the conservative tastes of many of the patrons, and it is probably a correct deduction. Soups are unpopular in some districts and low quality canned soup, which can pass muster under an M.O.F. Code of Practice, is probably responsible for the decline in demand, but the soup recipes given in this book should satisfy the most exacting taste and appetite.

Modern ways of preserving and packing foods are discussed and the rules for protecting the standards of various foods are given. Quality, one might say, is the keynote of this book. So many factors have to be considered in the planning of menus for canteen feeding—the uncertainty of suppliers, the desire to avoid monotony in service and to prevent "sameness" in diet. Also appetites dulled or stimulated by the conditions of work or of temperature have to be considered. Time allocated for meals is usually rationed and so meals which can be served quickly and eaten without hurry in a prescribed time have to be arranged. However, the kitchens of a canteen which lays so much emphasis on good preparatory work, as do those organized by Mr. Hampton, are assured of success.

The recipes for puddings, pastries, cakes and yeast buns read well—and why do we not see and hear more of the Danish-almond-bun type of cake! Time is probably the most dismaying factor to most cooks, but though dough must "rise," it can do so comfortably whilst meals cook; and the ovens can bake the bread cakes in and between vacancies. If more than one shift is working, heat must be maintained in some ovens. Chapter 20 deals with the respective merits of various types of equipment, and interesting comparison is made and advice given respecting the uses of steam, gas and electricity in the canteen kitchen. The complications of recurring meals, which are necessary where shift work prevails, are many, and the caterer needs to be something of an engineer if he has to make the most of and obtain the best service from his equipment.

The almost astronomical figures relating to meals served in canteens, restaurants, etc., etc., in a week and quoted in this book, give some indication of the immense importance of catering as a public service. It also points to the domestic and social revolution which has taken place in most British homes.

There is an appendix and a ready reckoner of ingredients for recipes calculated to serve 100 persons. Those recipes given in the book are for items of food planned to serve 25 persons. The last pages are concerned with a very detailed index of this extremely well-planned and detailed book. It is much more than a clever cookery book—the "local" history of so many of the items of food discussed besides being helpful present an interesting picture of domestic trade routes across the seas. Ben Jonson is aptly chosen in an introductory verse to this worthily-produced publication.

Continuing Management of Epilepsy

(from page 217)

which is a danger to himself and to others. If anybody employs an epileptic and he is injured at work it is the responsibility of the employer. Some people would like to alter this but on the other hand the patient who is an epileptic is probably not a good judge of what is his best employment and would take, very often, unjustifiable risks, and the medical officers of big works should certainly have the last word in saying what occupation the epileptic should follow.

Philadelphia Story

(*continued from page 193*)

entirety by the Philadelphia school system. The Philadelphia schools have a radio-television staff, five full-time members of which, plus four part-time members, had already planned and produced 200 live telecasts during the school year 1950-51.

The staff has made it a policy to keep in the closest possible touch with both teachers and students. Each spring the staff confers with curriculum committees, members of special subject departments, principals and teachers to plan programmes for the next year. Suggestions on the evaluation sheets sent in by teachers and pupils are carefully considered. Subjects for certain age levels are decided. Each individual series is then placed under the direction of a staff member, who plans with the curriculum committee the content and format for each weekly presentation. A point of some interest is the fact that each programme is a complete unit, so that no continuity from week to week is necessarily required.

Students and teachers participate regularly in these programmes. Indeed, for the most part, they constitute the show. Already in the second year of operations 2,500 pupils from 145 schools were reported as having taken part in 210 telecasts.

In addition, visitors and experts outside the school system are presented. "Top flight personalities have participated willingly in this pioneer effort."

In the light of suggestions from both teachers and pupils, production techniques have been modified. Thus the number participating in any given telecast is now limited to three or four. Simplicity is emphasised. There is much use of close-up camera techniques to enable all students in the classroom to see comfortably.

The Philadelphia schools have run into the problem of trying to reconcile the needs and interests of students at many age levels and of outside viewers as well. "The staff has discovered that programmes must be *interesting*, not necessarily funny, to sustain attention. The great danger is of 'programming down' to pupils. It seems better to lead pupils slightly beyond where they are than to present material familiar to them in an elementary manner."

In-service Training

Every year since the beginning of this project, a summer workshop has been held for the in-service training of teachers. Instruction is given in production and in programme utilisation. The personnel of local television stations co-operate. Incidentally, credit can be earned for participation in the workshop from Temple University or the University of Pennsylvania. The Philadelphia school system endorses the opinion, expressed by teachers everywhere, that among the urgent "next steps" in the development of television for the classroom is the wider provision of such training for in-service teachers.

Results and Reactions

The Philadelphia staff are encouraged by the fruits of their labours thus far. "Follow-up activities are almost amazing. For instance, teachers report that, as a result of 'Science is Fun,' children built small motors, collected insects, built small radios, and worked out a large number of experiments. . . . 'Everyone's An Artist' led to a tremendous number of art projects in the classrooms. The Director of Fine and Industrial Arts and his supervisors consider this series a valuable 'in-service' training course for teachers, as well as a fascinating participation programme for children."

Many parents, too, evidently follow these programmes, for after each telecast come 'phone calls and letters requesting further information. One woman called to say: "My phone rang just before the candles were finished . . . how do you get them out of the moulds?" Another wrote: "I am a cripple and take care of my granddaughter. How did you tie the ends of the rug you made yesterday?" She didn't quite get it all.

Surveys of teacher opinion list these benefits of television:—

(1) Classroom activities are stimulated.

(2) Field trips are requested.

(3) Children seek supplementary reading.

(4) Vocabularies are enlarged.

(5) Children are more aware of the importance of good diction.

(6) Children retain with amazing accuracy the skills and processes they have seen.

(7) Many of the teaching techniques illustrated have proved to be valuable in-service training for the teachers.

It should, perhaps, be stressed that the above findings are expressions of opinion, not scientifically verified conclusions.

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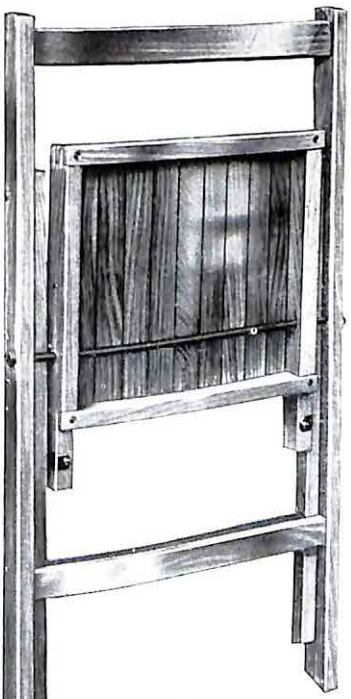

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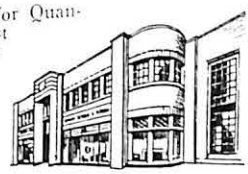

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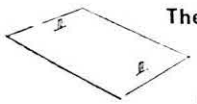

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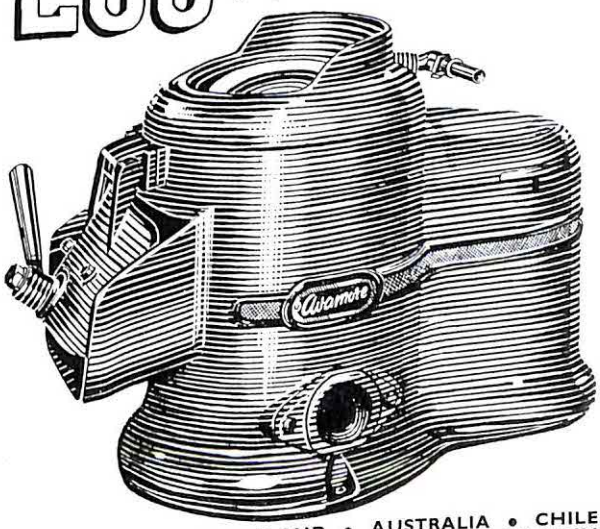

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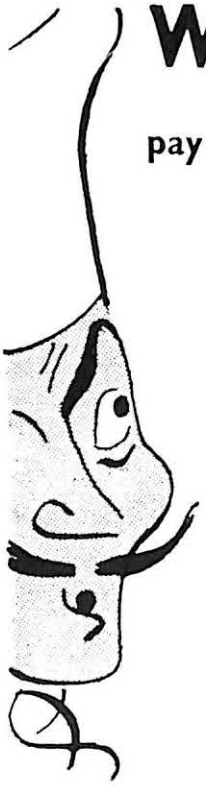

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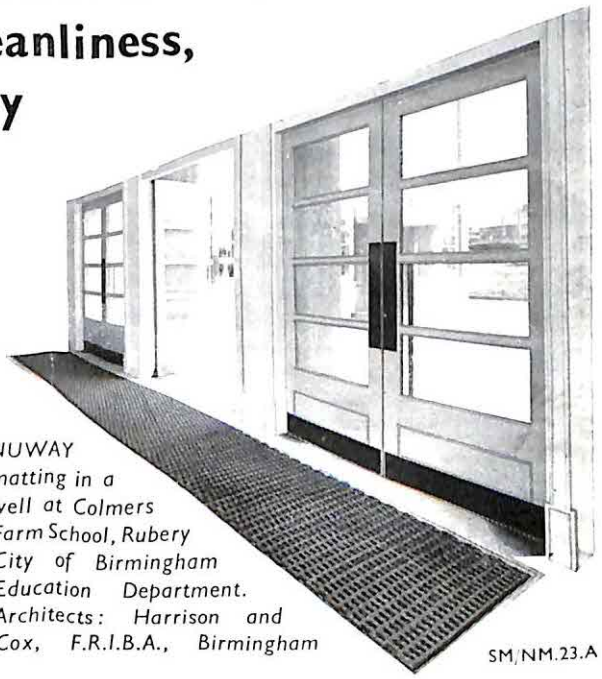

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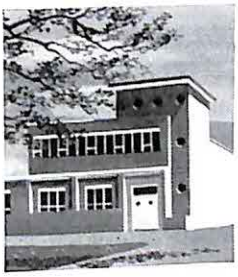

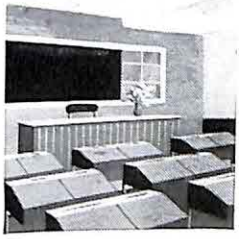

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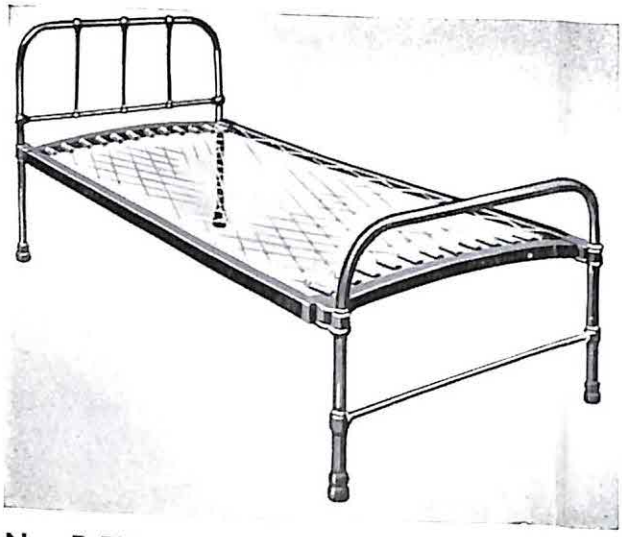

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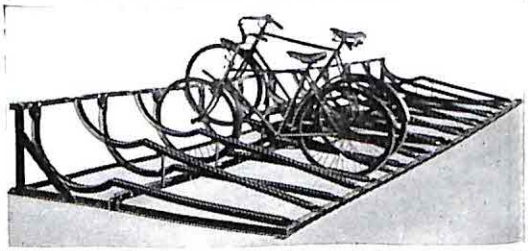

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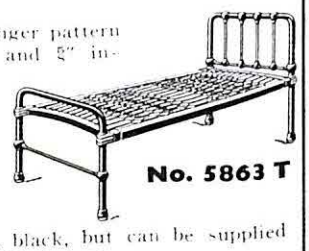

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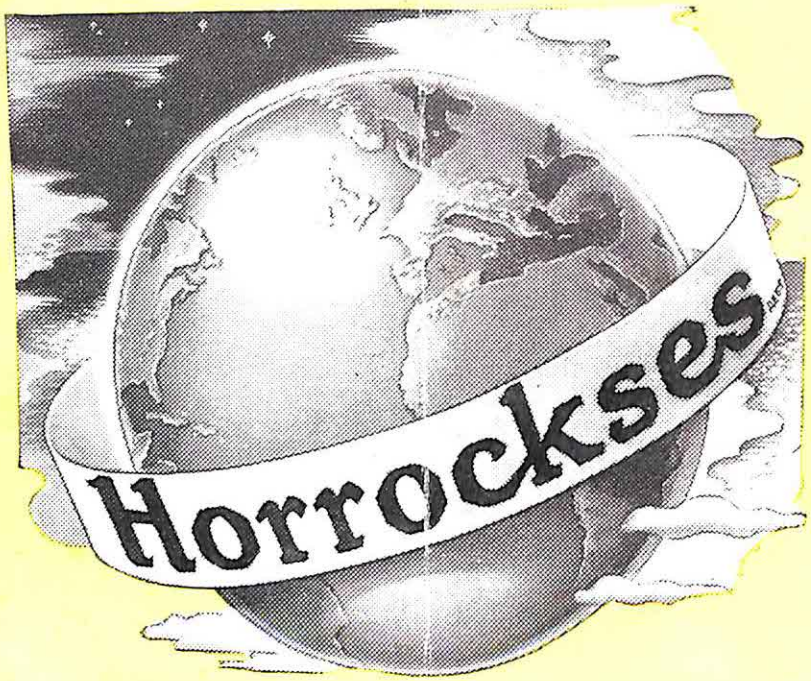

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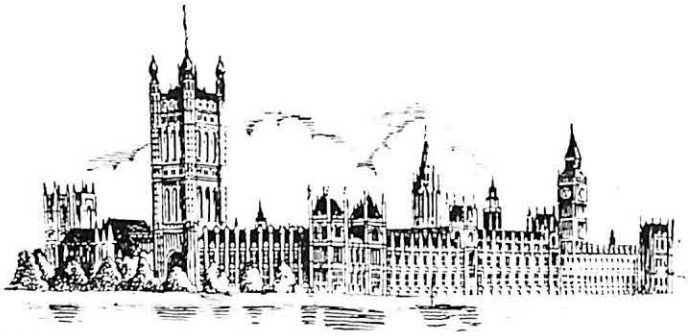

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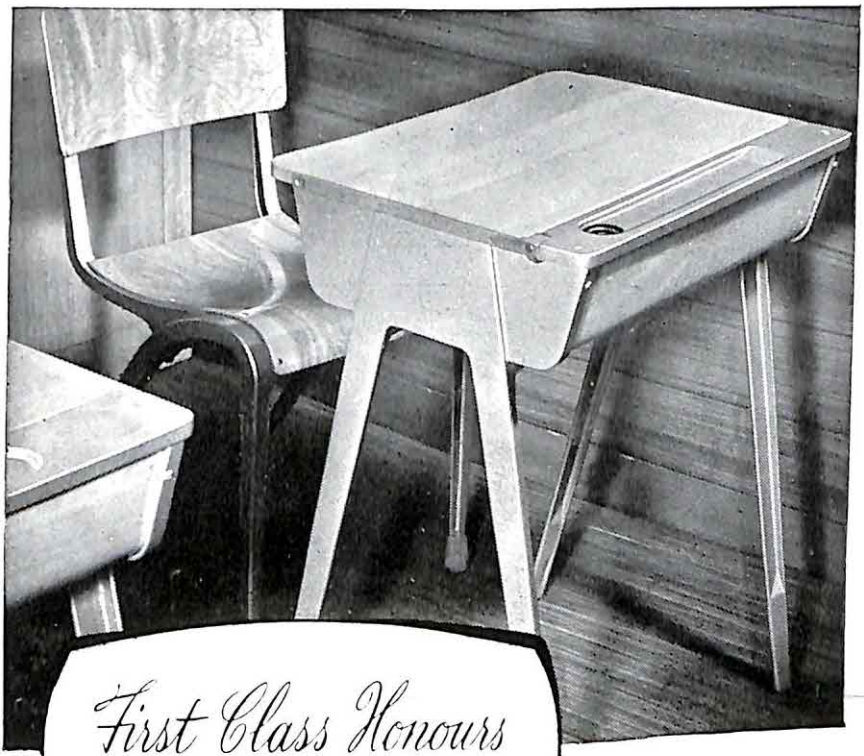

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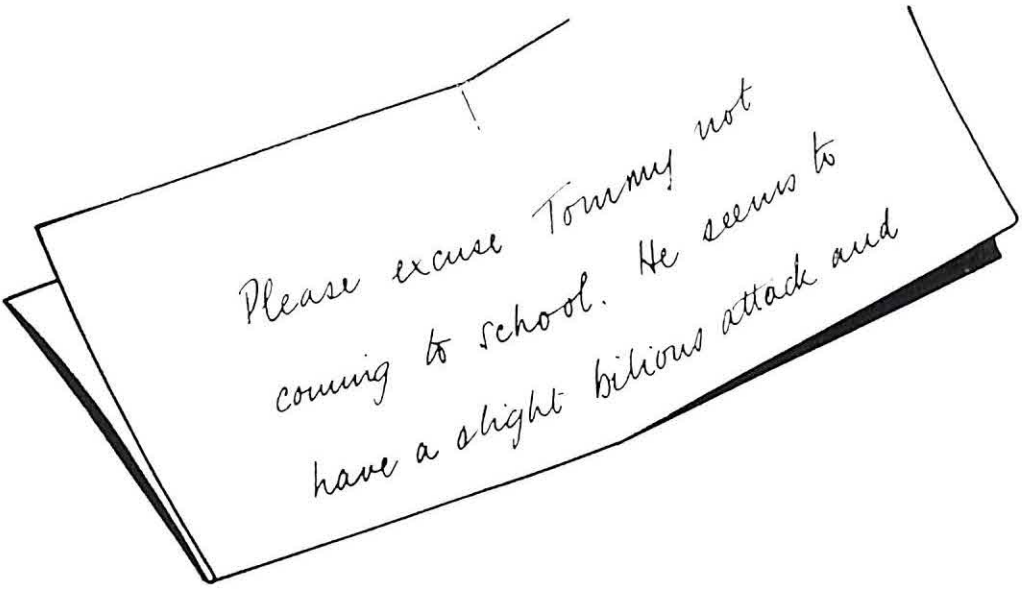

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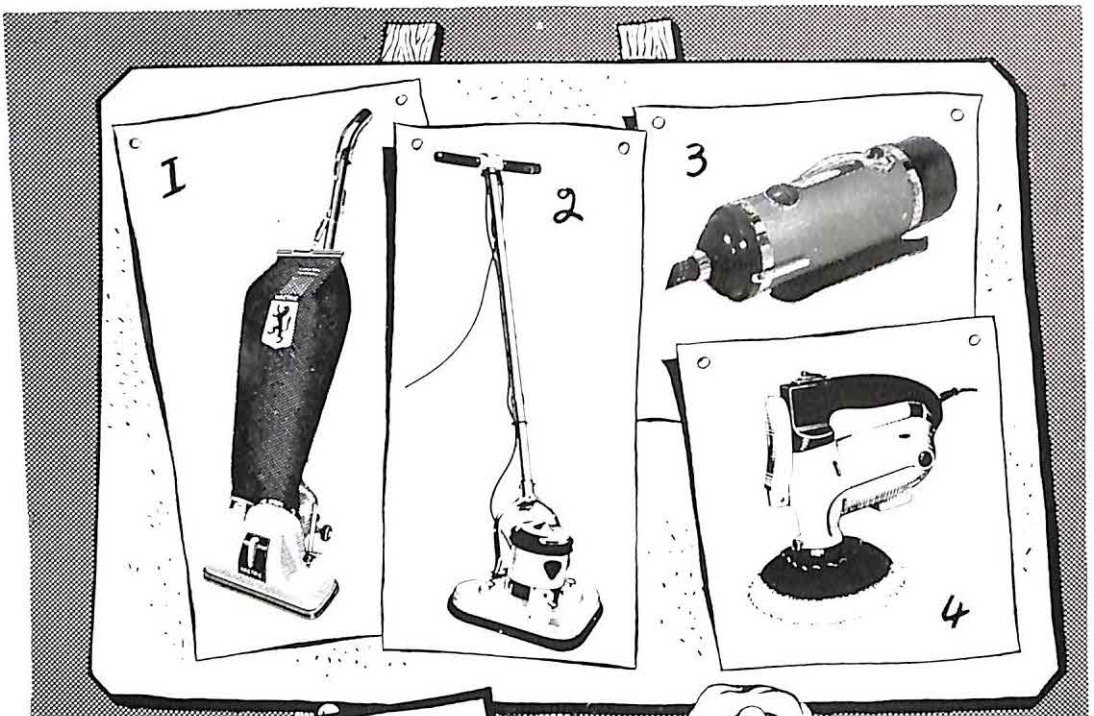

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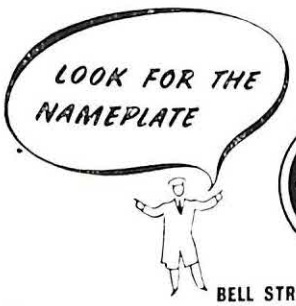

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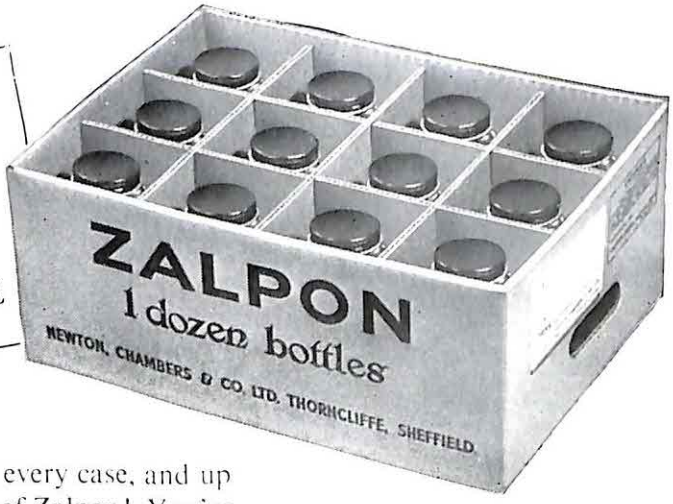

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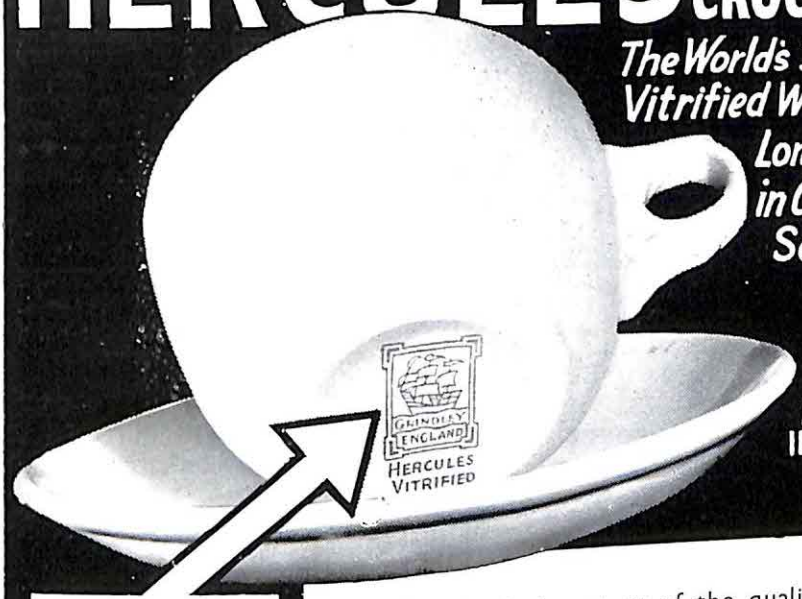

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SCHOOL & COLLEGE MANAGEMENT

Contents

People and Events 245

How to Co-operate with your Local Museum—nearly every town has its own museum of local history, and most museums are willing to help schools take full advantage of the facilities they offer, as a curator explains in this article 246

When a Teacher Retires—C. L. Berry suggests some answers to the three main problems of superannuation that face both employers and staff 249

This school runs **A Pig Club that Pays Dividends** 251

Swimming Bath Hygiene—Dr. R. E. Smith discusses the four main precautions that the school can take against spread of infection . 254

preserving section

Our two cookery and diet experts, Mrs. Elizabeth Midgley and Mrs. Doreen Davies, give advice on :

Fruit Bottling 257

Canning 258

Jam Making 259

Egg Preserving 260

Service Bureau 261

When the Art Class Goes Out-of-doors—Christianna Ardizonne gives some suggestions on organising and equipment 262

The Second Spring Sowing—W. E. Shewell-Cooper continues his series on the school gardens 263

Book Reviews 265

Vol. 13 *No. 6* *June, 1953*

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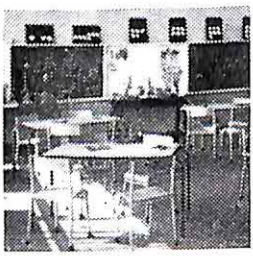

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PEOPLE AND EVENTS

A COURSE was recently held for teachers at Knuston Hall, near Wellingborough, designed to give them background information on the Coronation. Mr. R. Parkin, editor-in-chief, Northamptonshire Newspapers, who had carried out some research from the newspaper files upon the celebration of past Coronations, produced some remarkable facts about the capacity of children in the past to celebrate—by eating. In 1911 the children of Kettering, 6,000 of them, consumed in all 2 tons 8 cwt. of food; 2,500 lb. of cake were eaten and only 2,000 lb. of bread, along with 250 lb. of butter. Food and fireworks would seem to be the juvenile idea of a slap-up celebration.

* * *

The Warden of Toynbee Hall, Mr. J. J. Mallon, states that the Hall are eager to build up a library of orchestral and chamber music scores and parts and scores of operas and oratorios. Toynbee would be most grateful for gifts of such music to make it available to not-so-well-to-do music-lovers.

* * *

Mr. Ian Donald M'Intosh, head of the Modern Languages Department at Winchester College, has been appointed to be Headmaster of George Watson's Boys' College in succession to Mr. Ian Graham Andrews, who is shortly to retire.

* * *

A school belonging to the Woodard Corporation, St. Katherine's School, Heatherington Park, Taunton, will close in July. Recognised since 1907, the school now has 123 girls. The decision to close was "dictated solely by financial stringency." The Woodard Corporation have two other West Country schools — King's College, Taunton, and St. Clare's, Penzance. Both are reported to be flourishing.

Bromsgrove School was said, in 1556, to have existed "*a tempore quo non exstat memoria hominum.*" The school is, however, celebrating this year its fourth centenary—this year having been chosen as being the 100th anniversary of the tercentenary celebrations held when Dr. Collis was headmaster. In the present century, under the guidance of Mr. R. G. Routh (1913-31) and the Rev. D. J. Walters (1931-53), Bromsgrove has prospered and trebled its numbers. Mr. Walters will be succeeded this year by Mr. Lionel Carey, coming to Bromsgrove from Christ's Hospital.

* * *

The Minister of Education recently stated that the average cost-a-pupil for all pupils in maintained secondary schools was "a little under £54." The corresponding figure for pupils in maintained primary schools was "about £30."

* * *

Mr. Russell, M.P. for Wembley South, recently asked in the House whether the Minister would reconsider her decision not to make special provision for independent schools to watch the Coronation "because this constituted discrimination between different types of schools." Miss Horsbrugh replied that she did not feel justified in asking the local authorities concerned to make provision for children attending independent schools. It was a matter for the individual authorities.

* * *

Mr. Eccles, Minister of Works, has stated that special arrangements would not be made for schoolchildren from Scotland to see the Coronation procession. Reserved standing places, however, were going to Scottish youth organisations.

(continued on page 267)

We like to include notes of the activities of as many schools as possible in this feature. Schools can help to keep us informed about these events by sending to the Editor school magazines. Will your school secretary put us on your "mailing list"?

How the school can

CO-OPERATE WITH YOUR

by "Curator"

LOCAL MUSEUM

"MUSEUM" is a word that, unfortunately, has a most stuffy ring about it. There was a time, something more than fifty years ago, when "an object lesson" was regarded as the latest of bright ideas in schools and a few "objects" were usually kept in a glass-fronted cupboard in one of the corridors. My older readers will remember those mysterious cupboards that contained, usually, a snake or two in spirits; a bisected coconut in its husk; a number of stuffed birds; a case of butterflies and half a dozen birds' eggs. . .

The local museum was richer but probably just as eccentric in its choice of "objects"—being larger, it could go in for weightier things like elephants' feet and accept gratefully big game heads thrown out by the big house at spring-cleaning time. . . . No wonder that the word "museum" has still clinging to it an atmosphere of gloom and "don't touch"!

Nevertheless, I believe I'm right in saying that, for the young, the dullest of dull museums managed to have some charm and a great deal of interest, for the young love the actual. Two flint arrowheads from a local field, a bit of Roman pottery, a flint-lock pistol, buttons from a Cromwellian jerkin, were always enough to fire the imagination in a way even the best of history teachers found impossible. I'm almost prepared, quite contrary to present-day views, to say that the "don't touch" labels, and the stern custodian added something to the mystery and thrill of near contact with the past. But this is not a plea for dullness or for the older kind of museum. I want to discuss how, with understanding and co-operation, your own local museum is almost certainly prepared to help you and your school, and become yet another of the local allies of which every school should be aware.

I know we are all inclined to think our own job is particularly important. I don't think, however, I am wrong in saying that now, and in the near future, a museum can play a very vital part in education.

These are the days of "Visual Education"; but—no doubt some of you have raised this very objection—what is seen is nearly always seen at *second-hand:* the shadow, not the substance, is beheld. "I've seen it on television," "I saw that place on the pictures" . . . well, that is better than nothing so long as it doesn't breed an armchair smugness that completely destroys the will to *see for yourself.*

The "second-hand" stimulates

I'm not one of those who take the gloomiest of views about the likely effect of television upon our national culture. I have already noted, both among children and adults, that television already seems to stimulate, rather than detract from, interest in the actual. Let something be shown on a television programme in the evening and, sure enough, next day we'll have quite a crowd round the glass-case containing kindred or similar material, and queries in plenty. There does seem to be a need to confirm, and to widen, second-hand visual experience. Films, film-strips, TV are not the enemies of travel, sightseeing, or museums; they are, I believe, very potent allies and the demand from children and adults for opportunities to "see for themselves" has increased and will, most certainly, increase surprisingly.

"The schoolboy's friend"

Therefore there seems to be every reason why, if a school has not done so already, those responsible for its management should begin to explore the local resources in the way of first-hand visual education.

They say charity begins at home—everything worth while should begin at home, or at school. At the outset I made fun of the old school museum, the junk in the glass-fronted cupboard, but I do believe that it was better than nothing. And, these days, most schools have nothing. That's a pity. Most of us are collectors, jackdaws, by nature. A school has pictures and books in the library, but how many have—there doesn't seem to be one word for it—objects of beauty and interest displayed? I'm all for helping the school or individual to start a "museum" of their own. The beginnings of all museums, and perhaps of learning, is to be found in a schoolboy's pockets. From what he has, from what he has found, arises the wish to go further and find out more. If I have done nothing else in the district in which I live and work, let it be said of me that I've been "the schoolboys' friend"—always accessible, always (I hope) affable and sometimes, I trust, helpful and encouraging.

You can take it that every museum contains on the staff at least one "schoolboys' friend." I hesitate to commit my colleagues

(continued on next page)

in other towns, but I believe I can say that we're readily available to help teaching staff to plan projects—we have the necessary specialist local knowledge; we are very willing to help school societies by giving papers and informal talks and we welcome, and help as much as we can, the schoolboy or schoolgirl enthusiast, following his hobby or carrying out a piece of research, school inspired.

Can exhibits be loaned?

Local conditions, of course, vary and some museums are forbidden by their constitutions to permit objects leaving their custody even for an hour or two. But most museums are like icebergs; we've usually as much, or more, below stairs and out of sight as we have on view. It is usually quite possible, if we are given sufficient warning, to prepare a small loan exhibition to fit in with some project on hand or to illustrate some current enthusiasm or classwork. And, of course, there are facilities for sketching in our museum; we're of quite as much help to the art master as we are to the history master. Where I, at least, draw the line is that I am unwilling to provide, as I have been asked, swords and costumes for a school play! We're ready, of course, to give advice on costume and very often do.

It should not be forgotten that the officials of your local museum are always ready, too, to give advice on the value of, and the safe storing and arrangement of, documents accumulated by a school over the years. Yesteryear's papers are to-day's "junk" and to-morrow's sources of history. I have had one or two fruitful sessions with the headmasters and headmistresses of local schools discussing with them the preservation of school papers and, even more important, discussing what should be kept for posterity from the current snowstorm of paper.

A museum for every parish

The Established Church, it has been said, set down in each parish an educated man and, by so doing, helped adult education and general education, too, in a way that has not been appreciated sufficiently. There is not, yet, a museum in every parish, though I should like to see one. But, not too far away, there is likely to be a museum and you can take it that, in every locality, there is one enthusiast for things local and historical. Like all enthusiasts, the one thing we dislike most is to feel that nobody is interested in us and what we are interested in.

Need I say more?

You may not be over-enthusiastic about film-strips and to-day's convenient gadgetry, keeping the teacher from teaching and the pupil from bothering to see for himself. But you'll find, in your local museum, visual education material of an invaluable kind—invaluable, because the magic and mystery of the actual is also there. Not shadows on a screen but something of the past to be seen, perhaps touched, in the present . . . In my well-lit galleries and in my clear, uncluttered displays, there is still magic and mystery.

I needn't tell you what an invaluable ingredient that is in any teaching.

LEARNING ABOUT GOVERNMENT

A STUDY box has been specially prepared for teachers, instructors and discussion group leaders by the Hansard Society and the British Council. It costs 3 guineas and contains:—

Guide for the instructor; wall chart, "The Structure of Government" (30 in. by 40 in.), prepared by the British Council and the Hansard Society; wall chart, "The House of Commons" (30 in. by 40 in.), prepared by Pictorial Charts Unit; filmstrip and notes, "British Parliamentary Government" (47 frames); filmstrip and notes, "The Story of an Act" (25 frames).

"Parliamentary Government," by Sydney D. Bailey (an illustrated British Council Study Booklet); "Parliaments and Politics," by K. C. Wheare (Bureau of Current Affairs); "Our Parliament" by Strathearn Gordon, a standard illustrated work on the British Parliament; "The British Party System," a symposium edited by Sydney D. Bailey, dealing with the evolution of parties and the party system, the history, philosophy, and principles of the major parties, the role of minor parties, the Independent in politics, party organisation and finance, the formulation of party policy, and the party system in local government; "Parliamentary Government in Britain" a symposium by Viscount Ruffside (formerly Speaker of the House of Commons), Lord Milner of Leeds (formerly Deputy Speaker), R. A. Butler (Chancellor of the Exchequer), Herbert Morrison, Chuter Ede, Sir William Haley, and others; "Questions on Parliament" and "Answers to 'Questions on Parliament,'" by K. Gibberd; "A Day in Parliament"—sample material consisting of the official Votes and Proceedings, Hansard for the House of Commons and the House of Lords, and copies of the following newspapers reporting the debates: "The Times," "Daily Telegraph," "Daily Mail" "Daily Express," "News Chronicle," "Daily Herald," "Daily Graphic and Sketch," "Daily Mirror" and "Daily Worker," and a dramatised script based on Hansard; sample propaganda material (posters, pamphlets, leaflets, etc.) issued by the Conservative, Liberal and Labour Parties; sample poll card and canvass card.

When a teacher retires . . .

- What superannuation should he receive?
- Can a school pension scheme help him?
- Can he carry on working—and will this affect his pension?

These are three of the many questions that the retiring schoolmaster—and his employers—must consider. Director of Education C. L. Berry suggests some ways in which they can be answered, based on experience in state and independent schools.

EVER since the 1951 Budget Speech by the Chancellor of the Exchequer, the question of the age of retirement has been the subject of much consideration and special enquiry. Such consideration inevitably directs attention also to the many other problems connected with retirement. It becomes not merely a question of what should be the compulsory age for retirement under any particular superannuation scheme, but when *I* retire? What should I do with myself after retirement from my profession? Can I and should I continue in some form of educational activity . . . and so on.

Teachers who are employed in maintained or grant-aided schools come automatically under the Teachers Superannuation Acts, if their service is full-time and recognised by the Ministry of Education. The teachers' superannuation scheme originated in an Act of 1918. It was, in fact, complementary to the Fisher Act, which required for its realisation and fulfilment a properly-remunerated teaching profession with adequate provision for retirement, or for death or breakdown in health before retirement. It was, like the Civil Servants', a non-contributory scheme. Unfortunately an economy wave swept the country afterwards and ever since 1922 five per cent of the teacher's pension has been paid by him to the Exchequer as a contribution for superannuation. The employer—the local education authority or, in the case of a direct grant school, the governing body—also pays a contribution of equal amount. The benefits provided by the scheme are an annual retiring pension at the age of 60 to 65; a lump sum payable immediately on retirement; a disablement allowance and lump sum after ten years of service; a short-service gratuity after three years of service, and a gratuity in case of death while in service after five years.

A teacher may retire on pension at any age from 60 to 65. Service after 65 is not recognised as pensionable and until very recently it was not generally countenanced. Each year of service earns as a pension one-eightieth of the last five years' average salary, up to a maximum of 40 years' service. For the lump sum the maximum service recognised is 45 years and each year earns one-thirtieth of the average salary mentioned above. The death gratuity is the average salary, or the lump sum, or the return of the teacher's contributions, whichever is the greater.

The scheme makes no provision whatever for widows and orphans. Under an Act of 1937 a teacher on retirement can allocate part of his pension to provide a widow's or other dependant's pension. Alternatively, he can provide a pension for his wife to begin when he draws his own, plus a continuing pension to her if thereafter she is widowed. Not more than one-third of the pension can be allocated to a beneficiary. This voluntary provision cannot be made until the teacher himself retires. Thus it is still true that the teacher's superannuation scheme makes no provision for the widows and orphans of contributors who die in service. This is all

(continued on next page)

the more amazing when it is realised that provision is made for widows and orphans of officers in H.M. Forces, civil servants, police, firemen and others.

"Punitive legislation"

The position is all the more remarkable because the teaching profession has been singled out for what one educational paper calls "punitive legislation which no Minister of the Crown would dare to suggest in the case of other bodies of public servants," such as those mentioned above. The Government proposes to legislate so to amend the Superannuation Acts as to levy upon teachers and their employers alike an additional 20 per cent contribution. Again and again this proposed increase in the rate of contribution is referred to in all the teachers' papers as a "one per cent increase." This may be some explanation of the apparent failure to understand the proposals. The reason given for the onslaught against the superannuation scheme is that there is a supposed deficiency in the imaginary fund. The teachers' request that the contributions should be funded has always been refused. Instead all contributions are paid into, and all benefits paid from, Exchequer revenue. All balances are spent annually as they are accrued. It has been stated that the Exchequer has received in contributions some £90,000,000 more than it has paid in benefits, yet not one penny has been conserved! Government apparently requires that the scheme shall be self-supporting in the sense that, if the fictitious fund were closed at a date of valuation and no new contributions admitted, there would be enough money in the fund, plus interest, to pay all future benefits until their expiration. It is not, however, evident that other statutory pension schemes are or can be thus "self-supporting." The statutory teachers' scheme in any case can never wind itself up. It is a continuing scheme. Each new yearly wave of retirements is more than balanced by a wave of new entrants. The Exchequer's excess of contributions over benefits is overlooked and so is the fact that this excess increases with every increase in salaries. It looks very much as if teachers are threatened with an additional tax levied on them and them alone, for reasons which will not bear examination.

For the large school . . .

The teacher in an independent school may, if the school be large enough and financially strong enough, find that he becomes a contributor under a staff pensions scheme which will be of very considerable value to him. If, however, he is self-employed or on the staff of a small and unendorsed school he may have to make his own arrangements with a reputable insurance company, or forgo the prospect of retirement. The old-established and most reputable companies have excellent schemes largely operated in business companies but equally applicable to schools. They are so devised as to recognise the increments in salary resulting from promotion or long service. They provide a pension for life and allow of options at the age of sixty. The pension may be taken at the agreed figure. Alternatively, there may be allowed a slightly reduced pension plus a continuing pension for the teacher's widow. Thirdly, the teacher may choose to receive one-quarter of his pension as commuted in the form of a tax-free lump sum, plus a pension at the rate of 75 per cent. Income-tax rebate is allowed on all contributions by the teacher. The employer may have his contribution recognised as a business expense. The scheme provides life cover to the date of retirement. The terms are advantageous, thanks to the teachers' low mortality rate and high expectancy of life. Whatever policy the teacher in an independent school may subscribe to, one thing is as certain as anything in this changing world. The teacher concerned will never be faced with a demand for a 20 per cent increase in his premium. Actuarial revaluations may affect future policies. The insurance companies may be relied on to keep faith with their policy holders.

Retirement age

Having understood and mastered the machinery and mechanics of pensions and similar benefits and being satisfactorily covered for them, the teacher is still faced with the individual and personal questions. When should he retire? The idea that retirement should be postponed has been recently popularised, but it is strange that its real irrelevance to the teaching profession should not be evident. Teachers may retire at 60. They must retire at 65. It is now proposed to allow them to continue teaching until 70. If this were agreed, would the next step be to make 65 the minimum retiring age? Yet policemen may retire at 45 and so may firemen, regardless of the number of fires which they may or may not have attended. Teachers generally will agree that no one should continue to teach young children after the age of 65 and

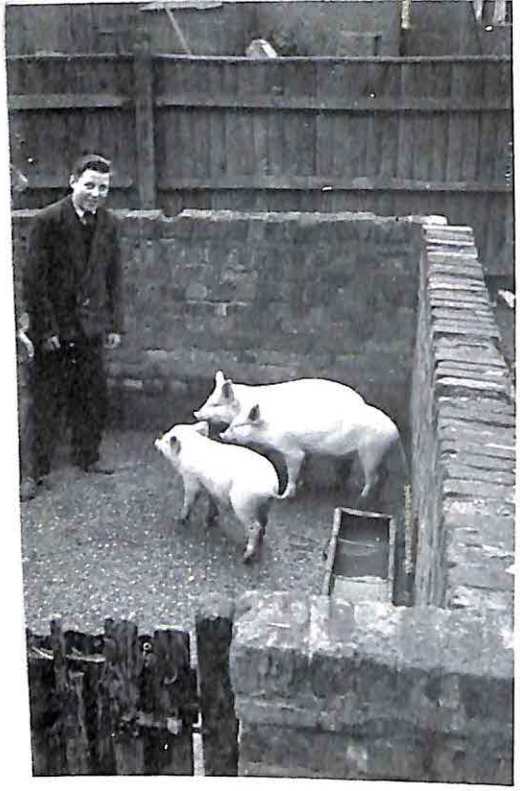
(continued on page 266)

A Pig Club *that pays dividends*

THE idea of starting to keep pigs at our school* was conceived in 1942, during the stress of the hungry war years. Now, after more than ten years of vigorous life, a short examination of this club and its working may be of considerable help to those teachers who are giving some thought to this matter of running a Pig Club.

First of all, let me assure the reader that a Pig Club is an economically profitable enterprise, because it adds to the meat supply of the members' families, pays monetary dividends to the members, and all for a quite negligible amount of work. But we believe here that a Pig Club is profitable in another sense, which is just as important, if not more so than the purely mercenary one. Those boys who are members of the club do learn to be kind to animals, and this cannot be said of all city boys. They learn scientific animal management, their sense of responsibility is deepened, and their experience is broadened generally. City boys like this do not make nuisances of them-

* *Lea Village Secondary Modern Boys' School in Birmingham.*



selves in the countryside. It is because of this therapeutic value that the club has continued; it is because of this that it receives official support.

The raising of capital was achieved in many ways, by the sale of produce from the school garden, by holding various competitions, by donations from the staff, a grant of over £5 was received from the School Fund, and a handsome gift of £10 was donated by the Education Committee. Even after the sties were erected, visitors were charged ½d. for viewing the inhabitants! But a regular source of capital was established at an early date. This was to be a joining subscription of 5s. from each of the forty boys chosen to be members. In spite of this income the club ran into debt at first, but the sale of the first two porkers for £26 put that right, and the last recorded deficit was in May, 1943. Nowadays the joining subscription is 7s. 6d., and there is a weekly fee of 3d. from each member.

With both cash and interest raised, application for registration was made to the local branch of the S.P.K.C. (Small Pig Keepers' Council). This was succesful, and coupons for obtaining pig meal were issued to the club. Membership of the S.P.K.C. is still necessary at the rate of 1s. per member per year plus 10s. Animal food supplies are fast improving though, and there are rumours of this bureaucratic control ending in the autumn.

Next, the sties had to be built, and with nothing to spend on labour. The boys did the work; the foundations were dug as far away from the main school buildings as possible. The design is simple yet excellent. There is the central building, containing stores, the boiler and other equipment, two sleeping quarters under the eaves which are each capable of housing four pigs, and these lead out to separate runs. All the walls are nine inches thick, and through apertures left above the troughs in the runs, the boys are able to feed the pigs without being knocked over in the mad porcine scramble for dinner. These sties and all the miscellaneous items of equipment like brushes and aprons and so on, cost the club just over £54, but I notice that the second-hand bricks used cost only 25s. per thousand in 1942-43. Now they are at least £3 10s. with delivery. But even to-day there are very good sties of a pre-fab nature, and capable of holding four animals, which can be bought for about £40.

The club made two incursions into breeding, but after two sows had overlaid and killed some of their piglets, it was decided that the sties were not big enough for littering. Stocking is now carried out on the following lines. After the summer holidays, during which time the sties are empty, the club carefully studies advertisements in the local Press, then buys two or three "store" pigs of four or five score, each costing about £14. At the same time the club will buy four or five eight- or ten-week-old "weaners," which might cost anything from £3 to £6 10s. each. Sex is not important, and Tamworths, Saddlebacks and Large Black and White crosses have all proved to be reliable breeds. Male piglets are castrated by the breeder before sale. The store pigs are killed at Christmas when between seven and nine score, and divided among the club members. The weaners are ready for sale to the Ministry in the following February or March. Another four weaners are bought after the killing of the store pigs at Christmas, and four more when the February or March killing is over. At the end of the summer term the eight surplus pigs are all killed. Two are divided among the members and the remainder go to the Ministry of Food.

Who does the killing?

Several points arise from all this. Who does the killing? In the case of the Lea Village Club a local butcher comes in and kills, singes, dresses and cuts up two pigs for a fee of 30s. Killing is done in the sties, but dismemberment is done in a room

with a tiled floor, which is easily washed down. The offal is distributed among the boys. The joints given out are worth about 15s. each, and at the summer killing dividends of 10s. to 15s. are awarded. The fact that the joining fee is returnable when a boy leaves school stresses the point about Pig Clubs being profitable.

The Ministry of Food is rather a vague term. In the case of a Pig Club it means your Area Pig Allocation Officer. Ours is in Rugby, and when notified of pigs ready for killing he sends transport, charges a nominal sum of 1s. per pig for collection, takes them off to the buyer and sends a cheque. He must in law take at least 50 per cent of your stock, and it pays to give some attention to his requirements. If he wants nine score pigs, aim at that, as prices will be best at that weight. You will receive less per score for a heavier pig. Nine score pigs are selling for over £20 at the present time.

Feeding the pigs at Lea Village is a comparatively simple matter. Pig meal at 37s. 6d. a hundredweight is purchased and about two and a half pounds per day are given to a six-month-old pig. But all the waste from the four school canteens on the premises (Infants', Juniors', Seniors Girls' and Senior Boys') is a big help, and expenses are kept to a minimum here. Weaners require three feeds per day and older pigs two feeds. And working to a rota, members arrive in their turn at 8.30 a.m. to give the first feed, and stay behind at 4.30 p.m. to give the second feed. Mid-morning and afternoon breaks, together with the lunch-time recess, provide ample opportunity for the boys to perform miscellaneous duties such as stoking, cleaning and removing manure to the school garden.

This manure has been very much welcomed by the school gardeners, and this, with the contents of the sump behind the sties, has been responsible to a large extent for the excellent yields obtained from rather a difficult soil. All waste greens are used up by the club, by the way. While we are on this rather unromantic but nevertheless practical subject, it must be said that pigs can be taught to be clean, not to foul their sleeping quarters, and so waste bedding straw. At the weaner stage, if the sleeping quarters are made rather cramped by stones or boxes, the young pigs will go outside rather than foul the actual place in which they rest. If this is kept up for some weeks clean habits are formed.

It is at the weekly meeting of the Pig Club that duty rotas are fixed or amended, and it is to the boys' credit that although these rotas have to include week-ends and the Christmas and Easter holidays, the animals have never gone untended. Keys are left with the caretaker, a most co-operative man. Only one complaint has ever been made, and that

(continued on page 266)

SWIMMING BATH

Dr. R. E. Smith, Consulting Medica

Rugby School, discusses the merits of fou

water purification

THE management of swimming baths is difficult during heat waves because everybody wants to bathe at the same time, and it is obviously impossible to allow, shall we say, six hundred boys to go into a swimming bath all together. Every school has its own regulations for bathers. I sometimes feel sorry for the person who is in charge of the bath, who tries to maintain a high standard of hygiene. However many rules are made, hygiene depends chiefly on individuals. This article is designed to suggest the purification of the water of swimming baths, and here I have quoted extensively from Dr. Key's and Dr. Beattie's paper in the Monthly Bulletin of the Ministry of Health, August, 1950. This is a summary of the memorandum of "The Purification of Water of Swimming Baths," published by the Ministry of Health in 1950, which is a revision of that published in 1929. The question of natural bathing places, on beaches and in rivers, have not been discussed by them.

If pollution is cut down to a minimum then the purification plant works much more efficiently. We should therefore first of all discuss pollution and then the methods of purification.

Pollution

Most of the pollution comes from the bathers themselves, and it therefore follows that the cleaner the bather, the cleaner the water will remain. Most public baths have facilities for washing before bathing, usually showers or footbaths. In most schools these facilities are near at hand in the houses, and therefore it is wasteful to duplicate them at the baths, but it cannot be stressed too much that a bathe in the swimming bath is not a substitute for a bath in the house.

Dr. Key and Dr. Beattie show that "Appreciable contamination may occur where the floor surrounding the bath is used by spectators and by bathers proceeding to the dressing-boxes. This can be avoided by arranging the entrance to the cubicles on the outside and by restricting non-bathers to special galleries or spaces." This advice is sound, yet it is difficult to implement. But it does remind us that changing rooms round a bath must be kept spotlessly clean and that when they are swept out we should be careful not to let the material get into the bath.

Bacterial pollution

Most of the bacteria in the bath are non-pathogenic, i.e., they do not cause disease, and many of the diseases attributed to them are due to other causes, although the bathing is a contributory factor. For example, I remember on one occasion a mild epidemic of pink eye (i.e., infectious conjunctivitis) occurring. On enquiring into the habits of the bathers I found that they did not use their own towels on every occasion but very often borrowed one which was dried without being washed. This was undoubtedly the cause, for when the practice was stopped the disease was quickly controlled. Impetigo is often spread in swimming baths in the same way as infectious conjunctivitis.

Another disease which is attributed to bathing is athlete's foot. This, of course, can easily be spread in the baths, but usually the cases that come for treatment are boys who have had athlete's foot for some time but the bathing has accentuated their troubles. The feet are not properly dried, the organism lives in a moist, warm atmosphere and can easily make headway against the defences of the body. Ear-ache, leading to a running ear, may follow swimming, but again it is usually found that the boy

HYGIENE

Officer,

r methods of

had a sore throat or a cold before he bathed. During swimming the organisms had been carried from the throat to the middle ear along the Eustachian tube, and there they had started a further infection. Organisms similarly may be transported from the nose to the nasal sinuses, which are really only extensions from the nose. Dr. Roswell Gallagher, who was a medical officer to a large boys' school in America which would correspond to one of our public schools, published a paper in the *New England Journal of Medicine* (1934, Vol. 238, page 899), in which he showed from a survey of the illnesses of people who used a swimming bath at school that they had a slightly higher incidence of respiratory infections, but a considerably smaller accidents and injuries rate. Swimming therefore seems to be as safe a sport as any other.

Infantile paralysis

We have to give special consideration to poliomyelitis. It is doubtful whether poliomyelitis virus lives in baths. It is true that it can be recovered from sewage, and if one thinks that a bath is like sewage then it is probably better to avoid that bath altogether. It cannot be too strongly emphasised that if there is poliomyelitis prevalent in a district then people should realise that exercise almost certainly increases the risk of a severe attack. I have dealt with this before, but it is worth repeating that exercise during the interval between infection and the onset of paralysis has a very bad effect upon the paralysis. Dr. Ritchie Russell's word "suicidal" is a strong one, but it is justifiable if it will prevent stupid people thinking they can overcome an infection by taking violent exercise. If a child or an adult is ill, if he is feverish, has a headache, a sore throat, vomiting or diarrhœa, it is better to rest the child than to be foolhardy enough to think that violent exercise will overcome the condition.

My experience is the same as Dr. Key's and Dr. Beattie's, that "In properly controlled swimming baths the possibility of the water becoming sufficiently polluted to endanger health is remote. Thorough ventilation should reduce the risk of air-borne infections, and overcrowding should be avoided."

The methods of purification are fourfold, or a combination of them:—

(a) Continuous filtration;
(b) Sterilisation;
(c) Fill-and-empty method;
(d) Chemical treatment without filtration.

The only two real methods are continuous filtration and sterilisation. The fill-and-empty method of purification is obsolete because it is too costly and is disallowed by public authorities. Chemical treatment without filtration is also a limited process, and is in no way an alternative to full treatment. Continuous filtration makes the bath clear, but the filters we use certainly allow bacteria to pass through them, and therefore sterilisation is required as well. If the bath is very crowded and there is a rapid turnover of bathers the water in the bath should also have a quick turnover, and should not be more than four hours. It can very often be slowed down at night and made faster during the day.

Some of the baths do contain coagulants such as alumino-ferric which when it passes through the filter forms a film of sand and this enmeshes some of the bacteria. However, for the destruction of bacteria one must really have some sterilising mechanism. This is usually done by chlorination, which is either effected by the use of bleaching powder in solution or by other liquids containing chlorine gas. An important point is that if chlorine is used it should enter the bath at several points. This is not so important when the bath is being used by a large number of people as mixture takes place very much more easily, but if the filtration plant is at one end and the chlorine enters at the other end there may be very little movement of the chlorine through the water when the bath is not being used. The concentration of chlorine is maintained at definite standards, and here perhaps one might mention that it cannot be measured by the sense of smell. Very often people say there is far too much chlorine in the bath because they can smell it, but that is

really due to the fact that on a hot day the chlorine comes out of solution so much more easily than it does on a cold day. It is, however, just as important to maintain a high concentration on a hot day as it is on a cold day. Therefore accurate measurement is essential.

It depends on bathers

Chlorine acts better in an alkaline medium or, as the chemists say, the *pH* should be between 7.2 and 8.0. The bath attendant, therefore, is an important person who will keep his bath in good condition only if he understands the whole process, keeps a log of the rate of filtration, the concentration of chlorine and the *pH* value, but as I have said before, much more depends on the individuals who use the bath than on the attendant. For schoolchildren using a bath regularly there ought to be very strict rules which, of course, can be maintained by the simple process of excluding people from the bath who disobey them. The rules which should be kept should be that no person should be allowed in the bath if he is dirty; no person should be allowed in the bath unless he has his own towel; no person should be allowed in the bath if he has any disease, especially if this involves the skin. These are the bather's "Don'ts," and "Do's" are just as important. Every child should be taught to swim, and the earlier the age within reason the better; children should not be excluded from baths because of illness in the past. Many children have been told never to bathe again if they have had an operation like a mastoid. They are not so common as in the past, but about ten years ago I investigated all the boys who had had mastoids and running ears, and provided they had been treated well, as they all had been, those that had bathed had had no recurrences, those who had not bathed also had had no recurrences, but they had lost one of the joys of childhood.

When to start bathing

When I first went to Rugby as medical officer I was always asked when I thought the bath should be opened, but as time went on other people took this responsibility, with the result it was being opened earlier and earlier each year. There is no doubt at all that with sensible bathing the risk of catching cold from bathing at low temperatures is very small, and equally there is no doubt that the effect of the cool water on the skin is much more stimulating.

Another positive suggestion is that every child should consider himself a possible lifesaver. A cup at Rugby for life-saving was given by Dr. Clement Dukes, who was medical officer to Rugby from 1871 to 1908, and who was so impressed with the way an apparently drowned person was restored that he gave this cup to the school. As he says in his book: "At one of our Universities, in 1885, a life was saved not only through practical knowledge of the method for restoring life, but owing mainly to indomitable perseverance. For even after the process had been well conducted for some considerable time, without any result, and when all hope of success was extinguished and efforts were being discontinued, a bystander suggested a prolonged effort, which was finally rewarded by success." He realised the important point was never to allow a person to get to this stage.

There are many aspects which I have not considered. These include bathing in the sea in the holidays, the disinfection of open pools, the dangers of bathing in rivers, the heating of swimming baths so that swimming can be a winter as well as a summer sport. I would suggest that if anybody has any special knowledge of these problems, especially as they affect the health of schoolchildren, they should contribute a letter to this journal.

SCANDINAVIAN ART

AN interesting and original holiday, for those who have not yet made their plans for this year, has been announced by the Ministries of Education of Denmark, Norway and Sweden. Acting in co-operation with the International Federation of Art Weeks, they have organised a three weeks' tour of the three countries, visiting places of artistic and historical interest. Starting on July 24 in Denmark, they will visit Odense, native town of Hans Andersen, and the Viking camp at Trelleborg; then on to Copenhagen and North Sealand. Leaving Denmark on August 2, they will cross to Malmo and then go on to Gothenburg. After a three-day stay in Sweden, the tour will continue to Norway, where a full program of visits is planned in and around Oslo. The tour will finish on August 9.

The cost of this holiday is £52 10s. for the three weeks, or £26 12s. if Denmark alone is visited. These prices are inclusive of hotels, meals and transport in Scandinavia, but not the outward and return journeys; they also cover most incidental expenses, including official receptions and banquets which each of the capital cities is giving for those attending the Art Week. Further details can be obtained from Mr. Hans H. Prior, Secretary of Ministry, B.A.L., 19 Skibelundvej, Copenhagen F., Denmark.

Picture by courtesy "Good Housekeeping"

PRESERVING

Our cookery experts Mrs. Elizabeth Midgley and Mrs. Doreen Davies suggest the best way of bottling, canning and jamming the summer's fruit supply in the school kitchen.

CANNING and bottling of fruits is not so complex as many people imagine. The principle of both methods of preserving is the same. The fruit is heated sufficiently to sterilise it and is then vacuum sealed to prevent penetration of moulds and spores which would bring about deterioration.

All fruits are sterilised at a temperature of 190 deg. F. or under and there is no problem in sterilising them with normal kitchen equipment, but this is not true of vegetables. Because of their lack of natural acid, vegetables need a higher temperature for safe sterilisation and a pressure cooker is desirable for preserving them. For this reason this article is limited to the preservation of fruits.

For canning, a sealing machine is the first essential and unless a considerable amount of fruit is to be prepared, the purchase of the machine may not be economical. A machine costs about £12. Cans are less expensive to purchase than bottling jars but, of course, they are a one-season-only item, whereas with care, preserving bottles will last a lifetime.

bottling

ALTHOUGH there are many kinds of preserving jars available, they are used in much the same way and in all cases the cap is fitted very tightly on to the jar with a plastic or rubber ring which makes the seal airtight. Before using the jars make sure that they have no chips. The rubber rings should be sound. (These can be tested by first soaking them in hot water and stretching them; if they do not spring back to their original size and shape they must be discarded.) The screw caps or spring clips must fit properly to hold the covers on the jars very tightly during the cooling down of the fruit. It is wise to rinse all jars in cold water before use and to soak the rubber bands in hot water for 10 to 15 minutes.

Preparation of fruit

Fruits must be ripe but never bruised or over-ripe. Apples and pears will keep their colour if, during peeling, they are slipped into salt water, using a tablespoon of salt to two pints of water. Peaches, apricots and tomatoes are best peeled; to peel them, dip them first into boiling water for 15 seconds and then into cold.

Liquid for bottling

It is not essential to use syrup with fruit —plain water may be used, although sugar does help to preserve a good colour and the flavour is very much better than when sugar is added after preserving. To make a syrup, 2 to 8 oz. of sugar should be dissolved in a pint of water. A heavy syrup using 8 oz. is desirable for peaches. Golden syrup or honey may be used to replace some of the sugar but, of course, they will impart their own flavour to the fruit being preserved. Tomatoes require brine. Use ¼ oz. salt and a teaspoon of sugar dissolved in one pint of water. For bottling it is essential to fill all spaces between the fruits with liquid. Having packed the jars firmly with fruit and then filled them to the brims with syrup or brine, the rubber band and top are put in place on each and the jars are then ready for sterilising.

Sterilising

There are several ways of sterilising. You can use either a deep water bath on top of the stove or it may be done in the oven. For the top of the stove method make sure that the container is deep enough to permit covering the jars with water. Place a false bottom in the pan (a few slats of wood, folded cloth or cardboard) and completely immerse the jars in cold water. Spring clips, where used, can be placed on the jars to grip the lids tightly but screw bands must be left slightly loose. It is very important to heat the jars slowly, to be sure that the heat will penetrate the centre fruits of each jar. About 1½ hours should be allowed before the water simmers; then the fruit should be given a further simmering time according to its variety:—

Soft fruits	10 min.
Stoned fruits	20 min.
Hard fruits — apples, pears and tomatoes ...	30 min.

Immediately the jars are removed from the water, screw bands must be tightened so that on cooling a vacuum is formed. Spring clips need no further attention, but when cold all jars must be tested before storage. Spring clips and screw bands should be removed and each jar lifted carefully by its lid to ensure a good vacuum. The jars can then be wiped and stored. It is not necessary to replace metal parts as these often rust during storage, unless given a thin coating of oil or vaseline.

Oven method of sterilising

A good way of sterilising in the oven is by standing the jars already filled with fruit and syrup in a deep baking tin lined with a cloth, and holding about 1 in. of cold water. This is an alternative to the water-bath method on top of the stove. It is quicker to handle a quantity of fruit this way but there is a danger of slightly over-cooking fruit. The jars should remain in a cool oven—300 deg. F., gas 1—for 1¼ to 1½ hours, according to the type of fruit.

For institutional work the pulping method of preserving fruit is often very convenient. Large quantities of apples, for instance, can be packed in a few jars if the fruit is first peeled, cut and stewed to a pulp. Very little water should be used—sugar is not necessary, but a little may be added if desired—and the hot pulp is placed into hot preserving jars. It is necessary to cover the jars and then sterilise them for a few minutes by immersing them in a pan of hot water to prevent glass cracking, and boiling them for five minutes. Then they are screwed down tightly and allowed to cool, and tested as described for other methods.

canning

ALL fruits suitable for bottling may be canned. The preparation of fruit is very similar except that when the cans are filled with syrup ⅜ in. space must be allowed for expansion of the liquid as the can is sealed before sterilisation. All manufacturers provide detailed instructions of canning with the machines but particular note should be taken of the sterilising times. Cans are immersed into boiling water and it is essential to time the processing according to the time taken for the water to re-boil.

Another point to be noted carefully when canning is that, unlike bottles of fruit, cans must be cooled quickly and immersed into cold water as soon as sterilisation takes place.

The main advantage of canning over bottling is that it is possible to handle a much greater number of cans at one time. because, for example, they can be stacked in the boiler for sterilising. Where there is a considerable amount of fruit and plenty of storage space, home canning is a good proposition.

jam making

THE war years taught many people just how very worth while it is to attempt jam making and fruit bottling and, where possible, to grow fruit for these processes. The Ministry of Food, too, recognise the value of this work in providing extra sugar for the purpose. Some will remember when one could choose from many types of sugar to use for preserving—lump sugar sold in big cones and in large and small cubes, crystal, granulated, castor, icing, brown and soft moist brown and possibly other types.

For the best table jams—strawberry, blackcurrant, raspberry, etc.—and those marmalades and curds where colour was as much a matter of pride as flavour and texture, we used the whitest lump or granulated sugar. For cooking jams of mixed fruits, pickles and chutneys one might descend to a coarser type of sweetening. Some fruit tarts were always sweetened with moist sugar as were spiced cakes and gingerbread. Methods have changed and we can add and subtract values for this or that fruit to aid those lacking.

Recently an old countryman was recalling the days when his father had a regular seasonal job carting washed swedes to a jam factory. He mentioned it as a regrettable "trade" dodge and was quite unimpressed when it was explained that although the vegetables were or might have been added for the sake of providing cheap bulk, the jam makers were probably adding better food value than they knew, in 1870, to their products. Stewed fruit needs only so much sugar as will make it enjoyable during a short period of time. Jam must be sweetened sufficiently and cooked at a temperature which will ensure it remaining "good" for months or even years.

Gooseberry Jam, red or green, is one of the earliest to be made and although many of us consider they have greater value bottled than when made into jam, here is a recipe: To each pound of fruit allow ¾ lb. sugar and if possible 1 gill redcurrant juice to each 3 lb. of fruit. If this juice is not available use equal weights of sugar and fruit with half-pint of water for every pound of fruit. Boil sugar and water together for quarter of an hour and add gooseberries. Simmer gently until fruit is clear (half to three-quarters of an hour). Test on plate for jelly. Pour into pots and cover when cold.

To make gooseberry jelly, which is as delicious with cold meats as it is as a preserve, place gooseberries (topped and tailed) into a preserving pan with a *little* water and stir them over heat until the fruit is soft. Strain through a sieve and to every pint of juice allow ¾ lb. of sugar. Simmer juice and sugar together until it "sets" when tested on cold plate (half to three-quarters of an hour). Pour into small pots. Cover when cold.

Apple, Black and Red Currant Jellies are delightful to have in the store cupboard and are little trouble to make. Use any "windfalls" for apple jelly, wiping and washing the fruit carefully and removing damaged parts, if any. Cut the apples into equal-sized portions, weigh, place in trays or jars, and steam, or stand jars in pans of boiling water and cook until fruit is tender. Empty fruit into jelly bags or cotton containers and leave overnight to strain. Do not squeeze bags to hasten process or the jelly will be clouded. To each pint of strained juice add ¾ lb. of sugar and (optional) juice of half-lemon, and stir the contents of the preserving pan constantly. Simmer for 20 to 30 minutes (skimming if necessary), test for jelly and pour into small jars.

The pulp of the apples or that of the black or red currants can be rubbed with a wooden spoon through a sieve and when sweetened cooked with rhubarb as a filling for tarts or puddings.

Blackcurrant Jam—

1 quart (3 lb.) picked fruit;

1 quart water;

Before starting to make jam . . .

you should have ready clean, dry jars, one metal spoon or fork, one or two wooden spoons for stirring the jam, a plate or saucer for testing jam, cup or small jug for pouring jam into little or big jars, an opened packet of salt in case jam boils over and flares in gas ring or fire. Damp, clean cloths for wiping jars when splashed by jam and to neaten rims of jam-filled jars. A block of margarine and clean knife (a little fat added to jam as it cooks dissipates scum which may be caused by badly-prepared fruit, or sugar, which is better if not over-refined), a sieve for straining or pulping fruit, bags for jelly making, and trays in which to stand jars whilst they are filled and on which they can cool.

When one pan of jam is cooked, soak and wash preserve pan immediately in readiness for further "jamming." Allow jam-filled jars to cool overnight before returning to store room.

Boil for 20 to 30 minutes, add ¾ lb. sugar and boil until jam "sets" (about 20 minutes). This makes a delicious jelly-like preserve.

Pour into jars whilst hot.

Raspberry Jam—

Add 1 lb. sugar to each pound of picked fruit. Stir until it simmers, then with wooden spoon beat jam vigorously as it cooks rapidly for *five minutes.*

Pour into jars whilst hot.

Strawberry Jam is delicious made as above but needs cooking quickly and stirring vigorously for 20 minutes. Pour into jars whilst hot.

Peaches, greengages, nectarines, Victoria plums, apricots, etc., may be preserved in syrup for "special occasion" dishes. To each pound of fruit allow 1 lb. sugar and quarter-pint water. Boil sugar and water for ten minutes, add stoned fruit and simmer gently until nearly tender. Empty carefully into a dish. Next day boil again for ten minutes with the kernels from the fruit stones added to the preserve. Very gently "spoon" fruit into jars, pour over syrup and cover with oiled paper when cold.

The Victorians almost always bottled damsons for winter use. Certainly their warm rich-coloured juice is pleasant in puddings and tarts, etc. This recipe is for damsons, but other plums can be used. One quart of damsons requires ½ lb. sugar. Put unblemished plums (minus stalks) into deep jars. Sprinkle sugar between layers of fruit. Cover jars when full and place in deep pan of cold water. Bring water to the boil and simmer until the fruit in the jar is soft but not broken. Stand the jar until cold. Strain juice from plums, boil and pour back over fruit. Cover jars with oiled paper when cool and store in dry place.

Recipe 2.—Fill jars with fruit. Pour boiling water over plums until it stands one inch above the fruit. Cool. Cut stiff paper to fit inside jar and over it pour melted mutton fat. Cover jar with brown paper, seal and keep jars in cool store. When fruit is to be used, remove fat, pour away (gently) water and dilute and sweeten jelly at the bottom of the jar. Pour over plums.

Apricot Jam made with dried fruit—

Dried fruit	1 lb.
Sugar	3 lb.
Water	3 pts.
Almonds	1 oz.

Soak for 24 hours in water and then simmer until tender. Add sugar and simmer for half-hour or until jam sets. Add almonds (blanched) and cut up, with sugar. Empty jam whilst hot.

Blackberries—Bilberries are good bottled or made into jam, and each mixes well with rhubarb, if a cheaper jam is required.

1 lb. bilberries;
6 lb. rhubarb (cut into small chunks);
7 lb. sugar.

A little water to dissolve sugar before fruit is added. Cook briskly when once jam begins to boil. Test after 20 minutes.

Rhubarb and Orange Jam—

1 quart finely-cut rhubarb;
6 oranges;
1½ lb. sugar.

Peel oranges and remove pith and pips. Slice pulp into pan and rind of three oranges cut into very thin strips. Add sugar and rhubarb. Simmer gently after the mixture boils. Test after 30 minutes. Pour into jars whilst hot.

Rhubarb and Lemon and Root Ginger (1 oz. to 12 lb. rhubarb) makes a good jam. Allow ¾ lb. of sugar to 1 lb. of young rhubarb. Grated rind and juice of one lemon Tie ginger in muslin and remove when jam is "set."

Rhubarb and Raspberry, 3 lb. to 1 lb. and 3 lb. sugar, makes a good cooking jam.

egg preserving

THE months of April to June are usually the best periods to preserve eggs, because at this time of the year, besides being more plentiful, the quality is best.

Preserving eggs is a simple matter that has been practised for many years, and some of the older methods are still used to-day. For example, in country districts, eggs are "buttered." The farmer's wife rubs them over with a coating of pure lard or unsalted butter, which seals the small pores in the eggs and makes it possible to store them in a cool place without the eggs deteriorating.

"Buttering" eggs would be neither economical nor practical in many kitchens to-day and this method has been replaced by sealing compounds which may be purchased at hardware stores, and are, in fact, more reliable because there is no danger of leaving small patches of the eggshell uncovered. The eggs are dipped into the compound and are then allowed to drain and dry before packing. They can then be packed closely together and providing they are kept in a cool storage place, they will keep for 9 to 12 months. This method of preserving is very practical, especially in places where storage is a problem.

Cause of failure

The best results are obtained when the eggs are fresh, and though it is difficult to know how old eggs may be, it is wise to

preserve them immediately they are obtained. Ideally the eggs should be about 4 to 5 days old. In my experience they are well worth while preserving even if they are 10 days old, although this may lead to a small percentage of failures. Even when eggs are preserved within a few days of laying, there are occasionally some losses. Various explanations have been offered for this—in some cases losses have been said to be due to the fact that the eggs were fertile. Since it is outside the realms of the housekeeper to sort out the unfertile eggs, she is advised to take reasonable precautions to select what appear to her to be good quality eggs, making sure there are no small cracks and that the eggs are clean.

Eggs should not be washed before preserving as this removes their natural "bloom" which helps to seal the pores of the shell.

Where storage space is no handicap, the water-glass method of egg preservation is very satisfactory. A solution of water-glass is made—directions for mixing are generally given on the container, but if in doubt make it strong enough so that an egg, when slipped in, remains suspended about mid-depth in the solution. Place the eggs in gently, making sure that all the eggs are completely covered with the liquid, holding the top layer down by means of an old saucer or plate, if necessary.

The pan must be covered, otherwise evaporation will take place quickly and the top eggs will become exposed. If the liquid dries up a little more water or solution may be added. When eggs are preserved in water-glass, they soon become coated with white, furry salts which seal the shells.

Eggs preserved by either of the methods described may be used for most general purposes, although it is wise always to examine them before use. Preserved eggs become more fluid than fresh ones, the albumen tends to be more yellow and the yolk is more easily broken, but they should not smell distinctly unpleasant. If not preserved within 14 days they may, however, have a slight "strawy" odour and whilst not desirable for poaching or boiling, they may be used quite satisfactorily in puddings and cakes where additional stronger flavours are present.

Preserved eggs can be used for nearly all purposes in cooking although it takes rather longer to whip up the whites stiff, but it is wise to take precautions when using them by first breaking each egg into a separate container. Stored carefully, preserved eggs will keep 6 to 9 months and be available during the period when they are most scarce.

Service Bureau

Enquiries to 18-20 York Buildings, Adelphi, London, W.C.2

Does Pasteurised Milk Lack Vitamins?

COULD you tell me the general medical opinion on whether extra vitamins should be added to the diet of children who are given either sterilised or pasteurised milk exclusively?

Only vitamin C is definitely destroyed by either sterilising or pasteurising cow's milk, but as long as foods such as eggs, butter, fresh fruits, herrings and similar fish, and national bread appear in the schoolchild's regular diet there is no need for extra vitamin C to be given. Milk that has not been processed in one way or the other should never be given.

Laying Tennis Lawns

Can you tell me the names of firms who deal in tennis lawns and the laying of games playing grounds?

The British Association of Field and Sports Contractors, Ltd., 76 Marylebone High Street, London, W.1, will advise you of your nearest contractors who can best advise you on this question.

Better Boilers

On page 64 of your February issue The Bursar mentions a gadget which increases the efficiency of coke-burning boilers. Can you give me some information about this?

The Bursar was referring to the "Edco" Fuel Saver, manufactured by Messrs. Hydro-Thermal, Ltd., Church Street, Boston Spa, Yorkshire.

Netball Repairs

The Bursar of the Technical School, Lilford, Oundle, Northants, on reading of one school's difficulty in getting netballs repaired, has written to tell us that the school handyman, who repairs all their own netballs and footballs in his spare time, is able to repair balls from other schools. The charge is very small and varies according to the amount of damage to be repaired. Schools interested in this offer should write to the address given.

When the art class goes out-of-doors

Christianna Ardizonne lists some of the equipment and organising ideas that make outdoor sketching simple

THE summer term is the most favourable time for taking the art class out of doors. This need be no more difficult to organise than painting in the studio, and there is certainly less clearing up to do afterwards.

For schools lucky enough to have a studio from which the garden is easily accessible there need be no difficulty about materials, which can simply be carried out, but for classes going further afield powder colours and such like impedimenta are out of the question. Ink, conté crayon and pencil are equally suitable and ink used with water and a brush can be particularly successful. Charcoal is rather less good, as, being so extremely soft, it needs larger sheets of paper than are easily portable. Water colours, though convenient, are inclined to be fiddling and are therefore seldom suitable for children, unless used in broad washes and in conjunction with ink or crayon. Hardboard, cut into suitable sizes, makes cheap and practical drawing boards, and is considerably lighter than wood. Paper can be firmly fixed to these thin boards with "Bulldog" clips.

Sketch books are useful, particularly for older children, but they should be books rather than those blocks from which one tears off the used sheets. Their chief virtue is that they keep the drawings together so that they can be used for future reference for paintings, a solution to the eternal question: "What can I paint?" The objections to sketch books are that they are rather expensive, though this could be overcome by buying only the refills, which are considerably cheaper than the complete books, letting the children make their own stiff covers, and, secondly, that they are wasteful, as children are inclined to use them for scribbling. A solution to the latter problem might be for the children to have two sketch books, one large one for use in the art class, which can be put away between classes, and a smaller one, which can be carried about in a pocket for making notes of anything that happens to interest them during the day. It is a good idea to encourage children to do this as much as possible; sketching in this way is a habit that can be useful for making notes for all sorts of subjects apart from art, as, for example, plants and animals for biology, architectural details for history, and so forth.

Older children particularly, should be encouraged to use their sketches as notes for painting which can be done in the studio. This is, perhaps, only suitable for a certain type of child, as others may find it simply a bore, and it will be of little interest to younger children, but it is the way to get the utmost value out of sketching.

Interest can be stimulated through the formation of a sketch club. It would encourage the children to draw, and to organise expeditions among themselves, with perhaps the help of the art teacher in the background. Their only requirement would be somewhere to hang their pictures, which should be simple enough. A friendly painter might even be persuaded to visit and discuss an occasional exhibition. A club of this sort would be very suitable for a town school who have to go far for an outdoor art class, as it ensures that only children who are really interested will come.

Parks are particularly pleasant for sketching, and some museums (not Art Galleries) such as the Natural History Museum or the British Museum are well worth an expedition. There is an enormous amount to draw in museums of this kind, besides which sketching is one of the easiest ways of learning, and can be extremely useful for future reference.

Landscapes, as such, are inclined to be difficult and discouraging to draw, and in most cases it is best to encourage the child to concentrate on some definite object, preferably in the foreground, such as a building or group of trees, the rest of the picture will then probably fall into place without too

(continued on page 265)

the second Spring Sowing

by W. E. Shewell-Cooper, M.B.E.

SIR WINSTON CHURCHILL'S appeal, made some time ago, to grow more food, should surely affect the school gardener as much as the market gardener. Our duty is to wrest as much as we can out of the land before the end of the 1953 season, and one of the best ways of doing this is to realise that it is possible during June and July to make sowings of vegetables which will give quite good crops during the autumn and winter. To do this, of course, the early maturing varieties will have to be chosen and thus it is like making spring sowings all over again.

It is very useful to be able to pull young, fresh carrots in September when the school has re-assembled. The large main crop carrots may be a standby during the winter but young carrots will certainly be much appreciated by the boys and girls for they have a far better flavour and texture. A supply of delicious young roots may be obtained if a sowing is made about the third week of July and another at the end of the first week of August. One cannot be very particular about the exact dates but the idea is to use land which has been well manured for a previous crop and which has recently become vacant. All that needs to be done is to give a dressing of a fish fertiliser with a 5 per cent potash content at 5 ounces to the square yard and to fork this in lightly.

Following the forking, it may be necessary to tread or give a light rolling to break down the lumps and this will be followed by the usual raking to produce the fine tilth. On this well-prepared firm soil drills should be got out one foot apart and as shallow as half-inch deep. The seed must be sown thinly and a simple way of doing this is to use sand or powdered peat as a carrier. It should be mixed with the seed at the rate of three to one. Choose early maturing varieties like Scarlet Model and Early Gem.

Though runner beans may go on cropping until they are cut by the frost in October, French beans are sometimes preferred, especially the stringless varieties like Stringless Refugee. The pods in this case need only be topped and tailed, and this saves a tremendous lot of time in the kitchen. Make a sowing during the first week of June, and another one if necessary early in July. Schools in the South-West will be able to make a third sowing about the end of July. Once again choose a piece of land that has grown an earlier crop and so there'll be little need to spend a long time on the preparation of the ground. Give the fish fertiliser about three ounces to the square yard.

Care must be taken to see that the soil is not acid and it doesn't take more than a few moments to make a test with a B.D.H. Soil Indicator. Most chemists will be able to supply this for a few shillings. Having made the test the right amount of lime could be applied, so as to bring the *pH* up to

between 6 and 7. This may mean applying anything from three to eight ounces of carbonate of lime to the square yard, though, of course, on the chalky land there may be no acidity at all. Lime is always applied as a top dressing and should be allowed to wash in gradually.

Make the rows 2 ft. 6 in. apart and the drills 3 in. deep. If the land is very sandy and lacking in humus some sedge peat may be applied down the drills before the seeds are placed into position 7 in. apart. Rake over lightly to cover and then with the head of the rake firm over the actual beans because firmness always ensures better germination. Peas are another pulse crop that might be included and a sowing may be made about the second week of June and the first week of July. Choose early maturing varieties like Kelvedon Wonder or Witham Wonder. Sow them in rows at least 18 in. apart and space the seed out about 3 in. apart in the rows. The great thing with peas is to see that the plants get plenty of water in dry weather, or otherwise they are badly attacked by mildew. Mulchings with lawn mowings always help.

Don't forget the importance of lettuce for salads are invaluable to young people. Small batches may be sown every three weeks from the beginning of June to the end of August. The seed should be put in ½ in. deep and one should aim to thin out the cabbage lettuce to 9 in. apart and the cos lettuce and Iceberg types to a foot apart. In this connection may I strongly recommend a variety like Webb's Wonderful. It's not one for the market gardener because it doesn't travel well, but it's ideal for the school garden as the leaves are so refreshing and crisp and the hearts are so firm.

Lettuces will grow on almost any kind of soil that is enriched with organic matter. In dry weather it helps to work in sedge peat that has been thoroughly soaked first at ½ lb. to the square yard, and in addition to use a fish fertiliser at 4 ounces to the square yard. If schools have any difficulty in getting this fertiliser locally, or the sedge peat for the matter, I can let them know where they can be obtained at reduced terms.

Spinach is another crop which may be sown, choosing a variety like New Giant Thick Leaved, and in this case the rows should be 14 in. apart, and the plants should be thinned out to 4 in. apart. Spinach quickly goes to seed unless there's sufficient moisture in the ground, so use the sedge peat as advised for lettuces, or apply finely-divided compost instead. Spinach beet is a useful standby for the winter because its a perpetual type. At the Horticultural Training Centre we usually make a sowing about the third week of July with the rows 15 in. apart, and the plants thinned out to 8 in. apart later. The great advantage is that you are pulling this spinach at almost any time throughout the winter. Always remember to remove the stems with the leaves. Some schools have lost quite heavy crops through just pulling off the leaves and leaving the stems on the plants—thus disease got in.

Varieties of turnips like Chirk Castle and Snowball are quite hardy. A sowing can be made about the end of July and another about the end of August. Very often the tops or leaves can be used as a vegetable in addition to the root, and so nothing is wasted. Remember that turnips are subject to club root, as are the members of the cabbage family, and so take the precaution of applying lime. The drills should be 10 in. apart and the aim should be to thin the plants to 6 in. apart in the rows. The roots can be used when ready and any that are not required may be stored in small clamps as are usually made for potatoes. When storing trim off the leaves and use them, but never trim off the tap roots.

Our front cover . . .

The accent in this month's issue is on out-door activities, those that affect both classroom and kitchen . . . so our front cover, too, has alfresco emphasis — it shows boys from Great Walstead, Surrey, engaged in a hobby which we do not envy them, although they are obviously enjoying themselves.

BOOK REVIEWS

The Life of a Robin

By David Lack.

(Pelican Books. 2s. 6d.)

THIS distinguished monograph was first published in 1943. Such an appellation is deserved but misleading because it gives no idea of the charm and excitement of the book, the tone of which is set at once by the delightful dedication: "To all those robins who patiently bore my rings and permitted my intrusions into the intimacies of their lives." The chapters on behaviour, with which a large part of the book is concerned, were more absorbing to me than the average best-selling novel, and one of the distinctions of Mr. Lack's work is that he is able to combine the most sensitive and careful observation with an enthusiasm that reflects itself in his literary style.

In its original form the book was one of the first full-length studies of a single bird to appear in print, and in spite of the immense richness of detail in the new edition, to which much has been added, Mr. Lack continually points to fresh fields of investigation which others may follow.

The dry, corrective asides in which he demolishes romantic sentimental inaccuracies are particularly appealing, as when he mentions the Christmas card which shows four or more robins perching happily together on a holly branch. The robin, who claims and sustains his own private stretch of territory to live in, will attack any other robin entering it; among themselves they are the most unfriendly of birds.

Does a robin sing because he is happy? Most certainly not, says Mr. Lack. He sings mainly for two reasons: to warn off rivals, where his song becomes a form of warfare, or to advertise for a mate. Mr. Lack's study of the robin at war among his kind is particularly useful; so similar is the bird's threat-posturing towards an enemy to the postures it adopts when seeking a mate that the two have hitherto been confused as the same thing. The photographs illustrating the bird's threat postures are quite exceptional. It is difficult in a short space to indicate the scope and importance of Mr. Lack's book; among many other excellencies it brings out most pertinently the value of the comparatively recent innovation of colour ringing. One is tempted all the time to quote, from sections on fighting, bigamy, instinct, courtship, age, migration and especially from the many paragraphs dealing with behaviouristic oddities. It is quite impossible to put the book down and look at a robin dispassionately; one can only watch it closely in the hope of seeing it display some of the idiosyncracies Mr. Lack mentions.

The Life of the Robin is as useful and enthralling to the householder whose garden is occasionally visited by robins as to the expert ornithologist. Many sections, especially those dealing with behaviour, should awaken in children a real interest in bird life, although in this connection the references to the robin's sex life might bewilder younger children.

V. M.

Visual Aids: Films and Filmstrips. Part 3: Science for Secondary Schools

(Educational Foundation for Visual Aids, 33 Queen Anne Street, London, W.1. 3s. 3d. post free.)

THE Educational Foundation for Visual Aids is an educational trust established for the purpose of providing a service to local education authorities and schools for the development of visual aids in education. Its governing body is appointed by the Minister of Education.

The volume under review lists all the relevant classroom films and filmstrips available in Britain at the present time for the teaching of science. All the material mentioned is obtainable from the Foundation film library. The catalogue is set out neatly and sensibly. The table of contents gives page references for the various branches of science—physics, mathematics, chemistry, biology and so on. Full instructions are given at the beginning about how to use the catalogue and how to order films and filmstrips. An objective account of each teaching aid is given, though it is pointed out that the inclusion of a film does not necessarily mean unqualified approval of every detail.

Teachers who have facilities for showing films will find this little catalogue, very reasonably priced at 3s. 3d. post free, of real service.

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continuing

Outdoor sketching

much bother. Cricket matches and the like are fun to draw, though perhaps it is better in this case to make numerous sketches and consolidate them into a picture later, as to many children, specially older ones, the continual movement is bewildering. Animals, particularly placid farm animals, are fun to sketch, and a visit to the zoo would make a wonderful expedition for the sketch club.

For very young children, unless the whole class can be moved outside, there is little to be gained from outdoor classes. They usually work considerably better in powder colour than in any other medium, and, in all events, they have a disconcerting habit of simply settling down and painting out of their heads regardless of surroundings!

Continuing

PIG CLUB

from page 253

was the occasion when a new member, unaware of the insidious nature of pigs, allowed the animals to squeeze past him and escape into the school playground. They led both him and the caretaker quite a dance before they were recaptured. On another occasion, during a holiday, a boy realised that one of the pigs was ill, reported the matter to the caretaker who 'phoned the vet. The latter diagnosed erysipelas, and the boy looked after this pig lovingly for the rest of the holiday. All the pigs are inoculated against erysipelas and swine-fever now, the latter being a disease on the ascendancy again in this country. Vet's fees for these inoculations are very reasonable—perhaps 5s. per pig.

Other matters besides rotas are discussed at the weekly meetings. The pigs and their characteristics, their ailments and the correct treatments are explained. Then new members are voted in, after keen debating on their fitness and sincerity. The new boys are drafted into one of the five squads, each of which has a boy leader and a teacher in charge, the teachers being honorary members. Perhaps the most popular subject for discussion occurs just before Christmas, for it is at this time that the annual Pig Club supper is held.

This important social event is carefuilly planned, and the boys, and the guests on whom they wait so expertly, sit down to a meal eminently satisfying both in quality and quantity, not the least important item on the menu being the delicious pork. It is after this repast that the Secretary stands to make his yearly report. The present Secretary, Mr. George Skellham, is the club's greatest asset, for he is an expert husbandman and horticulturist. Last Christmas, after reiterating the aims of the Pig Club, he had a question to pose. He wondered if kindness to animals could not be overdone, as he had seen one boy grooming a pig, and carefully parting the hair down the middle of its back! But better that, he said, than cruelty and neglect. Then to the distribution of largesse once more. After drawing lots for the joints of pork, neatly arranged on a table standing on the stage in the hall, the Headmaster and Honorary President hands each boy his allotted portion, so welcome at the festive season.

This School Pig Club then plays an important part in the social training of the boys, and it must please the members to know that although they are generously treated, their work is responsible for a healthy balance of over £70 in the bank, not to mention the £80 worth of pigs in the sties.

RETIREMENT

(continued from page 250)

that most teachers of young children would be wise to retire earlier.

What shall I do when I retire? The teacher, of all people, should find this question easy to answer. All his life he has had a shorter working week, shorter working hours and longer holidays than members of most professions or workers in industry or commerce. He has thus had greater opportunities to develop outside interests and to render unpaid social, religious and other service to the community. Teachers do respond to these opportunities and render great service accordingly. Their retirement should liberate them to extend this service still further and to devote their time, say, to local government. They may, of course, wish to continue teaching but not in full-time service. This may be done, but it must be remembered that at 65 a retired teacher qualifies for a National Insurance Retirement Pension of £84 10s. a year. If he works as a teacher for more than 12 hours a week thereafter or unless his teaching thereafter is purely occasional this pension will not be paid. It is, of course, always to be remembered that the teacher in an independent school will qualify by his contributions for that pension and his wife for £55 8s. a year—a joint pension of some £140 a year.

Non-teaching jobs

There are, of course, many other forms of work in the field of education other than actual teaching. Many retired teachers have found new and useful careers in such work who could not have carried on any longer in the actual day-to-day work of a school. There is much research, both local and national, waiting to be done by those who have the time and the interest to do it. To the man who has no interests outside his school work, no love for art or music which he can indulge in in his retirement, no church to help and support, no community which has any claim on him, there should be no retirement. Once he retires, such a teacher may prepare for death—but should such people ever be teachers?

It is stated that in 1956 there will be 18 per cent more children between the ages of 5 and 11 in schools than there were in 1951. This "bulge" in the birth-rate—and probably a proportional increase in the demand for places in independent schools—is something of which most of us are aware, though it may not affect many schools until the 1960's. What may not be so widely realised is the very marked variations, in different parts of the country, of this increased school population. It might be well worth a school's while to undertake some research into the local state of affairs. Taking 1951 as 100, the numbers of children in the 5-10 age groups in Southend in 1955 will be 125; in Coventry only 108; in the North Riding, 115. The boom in numbers will not necessarily be evenly distributed, or even automatic. It has been suggested that the rise will be felt more acutely in the boroughs than in the counties.

* * *

Brighton and Hove High School for Girls are reported to have lodged an objection to plans to turn two nearby houses into a hostel for boys convicted in the juvenile courts.

The Ministry of Education has published an index to all circulars and administrative memoranda which were current on January 31, 1953. This can be obtained from H.M. Stationery Office or from any bookseller, and costs 1s. 9d. Copies of another Ministry publication, the School Meals Service Equipment Catalogue 1952 (revised edition), are being circulated to local authorities.

* * *

The new Headmaster of Plymouth College is to be Mr. Francis William Lockwood. Mr. Lockwood is at present Headmaster of the William Ellis School, North London.

* * *

Mr. James Read, who had worked in the gardens of Lancing College, Sussex, for more than forty years, died recently at the age of 83. The College authorities described Mr. Read as their "oldest and most devoted servant."

* * *

The recently appointed Headmaster of Harrow, Dr. James, High Master of St. Paul's School, was educated at Rossall School and Jesus College, Oxford. Dr. James was brought up in Anglesey, where his father was a vicar.

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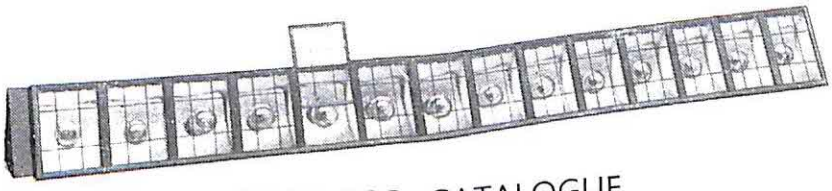

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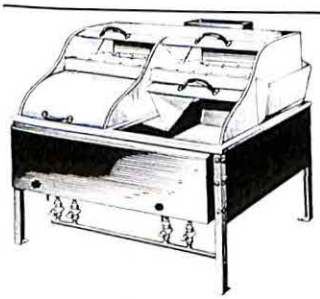

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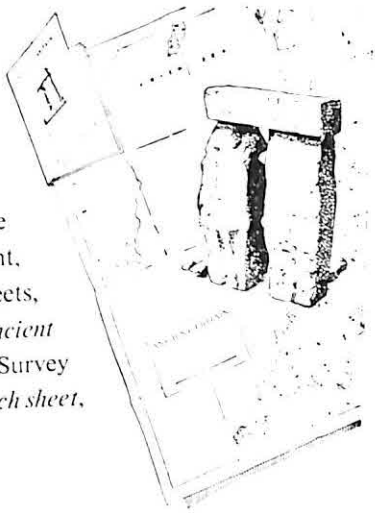

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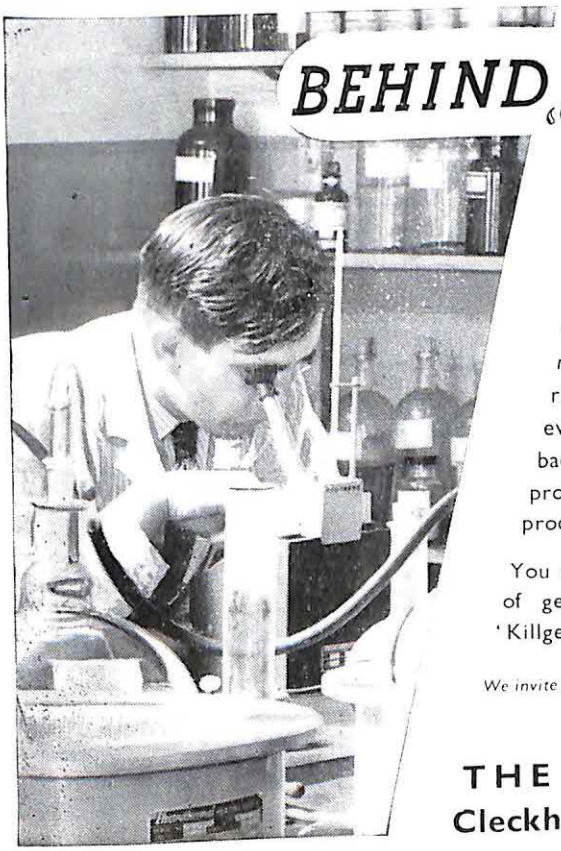

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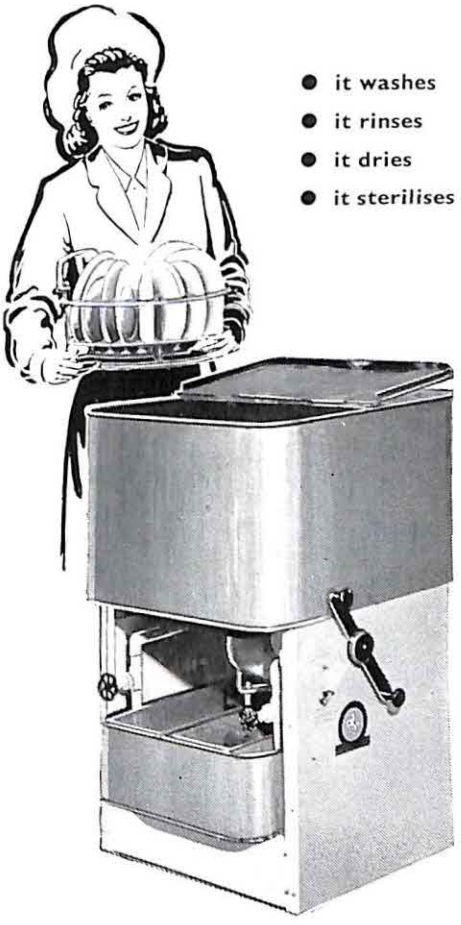

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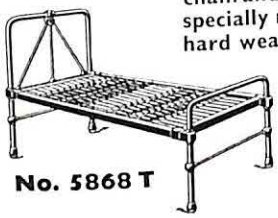

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Standard size is 6' 6" x 2' 6", but can be made in shorter lengths, i.e., 5' 0", 5' 6", or 6' 0". This pattern is made with 1" Bows and ½" Interior, and has Hardwood feet all four legs.

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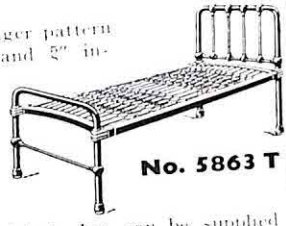

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"ECONOMICAL IN USE... EASILY AND SPEEDILY POLISHED"

Johnson's Traffic Waxes are used in St. Paul's Cathedral Choir School

Every day, in offices and public buildings, in countless places where large floor areas have to stand up to heavy traffic — you'll find Johnson's Traffic Waxes on the job.

For many years now, Johnson's have made a special study of just the problems your floors have to face. They have produced a range of waxes to suit your type of flooring, whether of wood, lino, rubber, plastic tile, asphalt, terrazzo, cement, cork or composition. Johnson's Traffic Waxes are hard-wearing, long-lasting, and require the minimum buffing to produce a brilliant shine. And because they are easily and swiftly applied, they save time and labour costs. If you should have any particular problem of floor maintenance, please do not hesitate to write to the Maintenance Products Division—they'll gladly give you expert advice.

ST. PAUL'S CATHEDRAL CHOIR SCHOOL.
CHOIR HOUSE.
DEAN'S COURT.
LONDON, E.C.4.

CITY 6643

8th July, 1952.

Messrs. S. C. Johnson & Son Ltd.,
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Dear Sirs,

You will be interested to hear of our experience in the use of your Traffic Waxes at Choir House.

The floors have been cleaned and polished with your Liquid Traffic Wax and although they receive constant daily wear and tear the surfaces have been given excellent protection.

We have found your products economical in use and we particularly appreciate the ease and speed with which the floors can be polished almost as soon as the wax is applied.

Yours faithfully,
A. Jump Price
Headmaster.

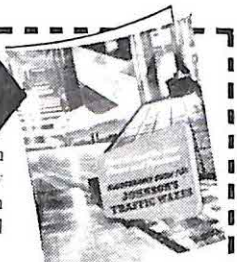
NO-BUFF
Self Polishing Wax
For rubber, plastic tile, lino and asphalt flooring. Shines as it dries — needs no rubbing or polishing.

TRAFFIC WAX
Paste
For extra protection in heavy traffic lanes on wood, cork, lino, etc.

TRAFFIC WAX
Liquid
For all wood, lino, cork, etc. Cleans as it polishes to a protective hard-wearing surface.

FREE!

This new leaflet tells you all about the Johnson way to clean and maintain your floors. A copy will be sent free on request.



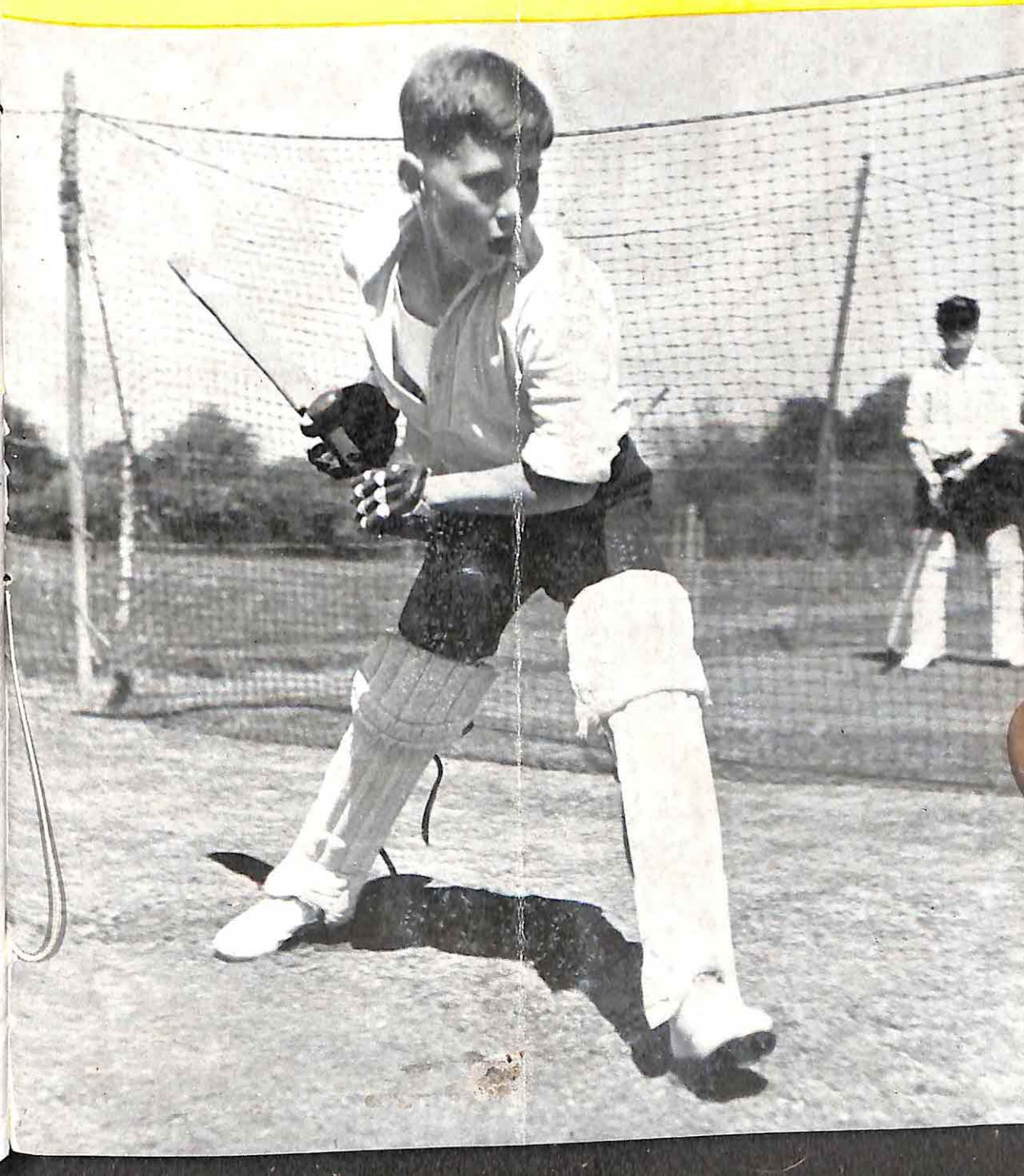
A WAX TO SUIT EVERY FLOOR

JOHNSON'S TRAFFIC WAXES

S. C. JOHNSON & SON LTD.
WEST DRAYTON, MIDDLESEX

SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 7. One Shilling and Sixpence July, 1953



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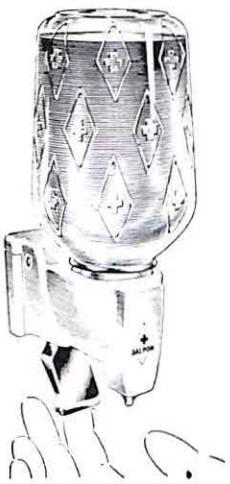

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Zalpon is delivered like the milk—a dozen bottles to a case. It's easy to store, easy to use.

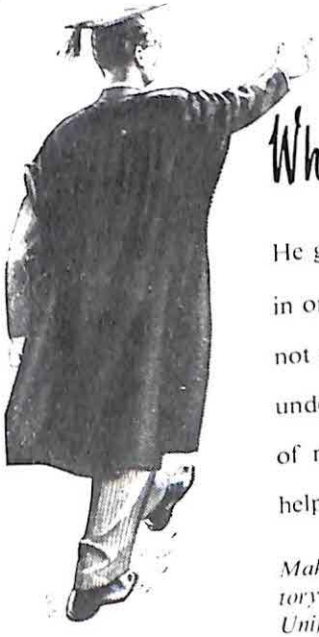
"Zalpon is so economical—it lasts for ages in the cloakroom. It does not trickle through your fingers or dissolve in wet basins."

ZALPON

the new way of washing

Ideal for Schools, Offices, Factories, Hotels, Cinemas and all Public Washrooms.

NEWTON CHAMBERS & COMPANY LTD., THORNCLIFFE, SHEFFIELD



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A tribute to Johnson's Traffic Waxes from St. Vincent's School

Every day, in offices and public buildings, in countless places where large floor areas have to stand up to heavy traffic — you'll find Johnson's Traffic Waxes on the job.

For many years now, Johnson's have made a special study of just the problems your floors have to face. They have produced a range of waxes to suit your type of flooring, whether of wood, lino, rubber, plastic tile, asphalt, terrazzo, cement, cork or composition. Johnson's Traffic Waxes are hard-wearing, long-lasting and require the minimum buffing to produce a brilliant shine. And because they are easily and swiftly applied, they save time and labour costs. If you have a floor maintenance problem, write to the Maintenance Products Division—they'll gladly give you expert advice.

Telephone:
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BEECHCROFT HOUSE, GOSPORT 8057 (Senior Boarding House)
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ST. VINCENT'S SCHOOL,
ALVERSTOKE,
HANTS

20th August, 1952.

Dear Sirs,

We have now had the opportunity of giving your Traffic Waxes a thorough test at St. Vincent's School, and we would like to say how pleased we are with the results.

We find that your Wax Products are extremely easy to apply and polish up. Moreover, they give a hard surface which is easy to keep clean and affords maximum protection against the considerable daily wear and tear of school life.

Yours faithfully,

C. N. Tool

Principal.

Messrs. S. C. Johnson & Sons Ltd.,
West Drayton, Mddx.

NO-BUFF
Self-Polishing Wax
For rubber, plastic tile, lino and asphalt flooring. Shines as it dries — needs no rubbing or polishing.

TRAFFIC WAX
Paste
For extra protection in heavy traffic lanes on wood, cork, lino, etc.

TRAFFIC WAX
Liquid
For all wood, lino, cork, etc. Cleans as it polishes to a protective hard-wearing surface.

FREE!

This new leaflet tells you all about the Johnson way to clean and maintain your floors. A copy will be sent free on request.

JOHNSON'S TRAFFIC WAXES

A WAX TO SUIT EVERY FLOOR

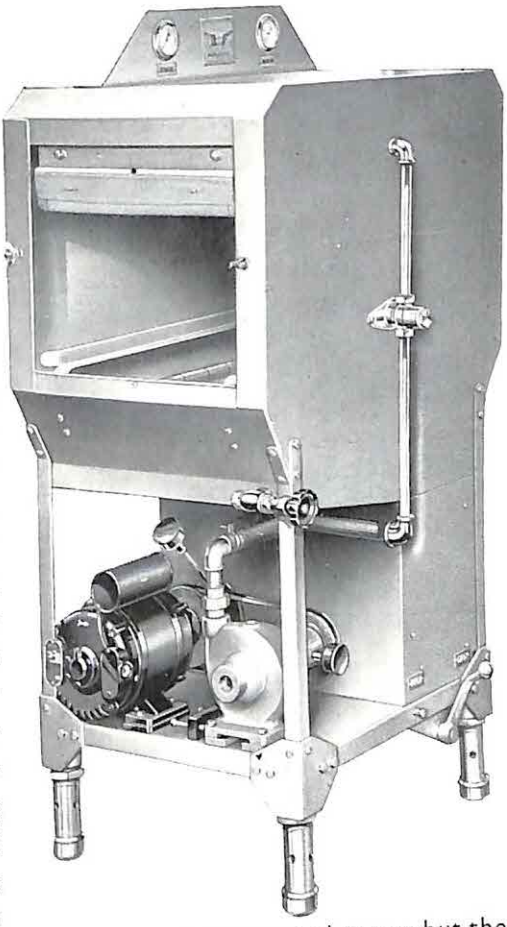
S. C. JOHNSON & SON LTD.
WEST DRAYTON, MIDDLESEX

THE AVAMORE

Torrent

DISH WASHING MACHINE

The Machine without a Fault



To make a good start to the new Term you will want to feel confident of the catering side of your administration and that your school meal service will always run smoothly. Not only have meals to be prepared regularly for large numbers but hundreds of plates, dishes, cups and cutlery must be washed up after each meal. This work can be done in one of two ways: by the arduous and costly method of a century ago (e.g. by hand) or with a modern electrically operated and fool-proof dish washing machine. Those who have wisely installed one of the AVAMORE "TORRENT" models are in no doubt which method they prefer!

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★ **CONSTRUCTION.** Body and Water Tank in rust-proofed sheet steel—stove enamelled in pleasing and durable finish.

★ **PUMP.** Non-clogging submerged type of advanced design providing maximum efficiency.

★ **WASHING SPRAYS.** Stationary type above and below dishes, located by bayonet fixing and easily accessible for cleaning.

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★ **RACKS.** Model H.O. 20
4 plate; 1 cup; 1 silver (each 16″ x 16″ x 3″).
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★ **SIZE.** Model H.O. 20, 30″ x 20″ x 53″ high. Model H.O. 35, 40″ x 30″ x 57″ high.

AVAMORE equipment can be obtained through all first class dealers and a technical specialist will gladly be sent to advise on installation details.

THE *Avamore* ENGINEERING CO. LTD.
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Specially designed by us to suit the requirements of schools in the light of experience over 20 years. Combines all essential school insurances such as Fire, Burglary, Employer's Liability, Legal Liability and Loss of Profits in one document. It costs less to insure this way and the protection granted is much wider.

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THE EDUCATIONAL ENDOWMENT PLAN

for the provision of fees at Preparatory and Public Schools, Universities, etc.
This plan has been arranged to lighten the burden of school fees for parents who pay out of income and to ensure fees for the full period of a child's education.

The advantages to the Parent are:-

1. SPREAD-OVER OF PAYMENTS
   The cost is spread from the inception of the policy until the child *leaves* school or university.

2. LOWER COST AND MORE SECURITY
   The total cost of a child's education is less, even though, should the parent die, no further premiums are needed and the payment of fees is guaranteed.

3. INCOME TAX RELIEF
   is granted on payments made by the parent.

THE SINGLE PAYMENT PLAN

By which the School Fees can be assured by a single capital sum paid in advance, either before the child goes to school or during the child's school career.

The advantages of this Plan are:-

1. LOWER INITIAL COST
   The capital sum required is less than the actual fees.

2. SECURITY
   The termly payments are of guaranteed amounts, and cannot be affected by capital depreciation.

The Plan can either be operated by the School or individual Bonds can be arranged for parents.

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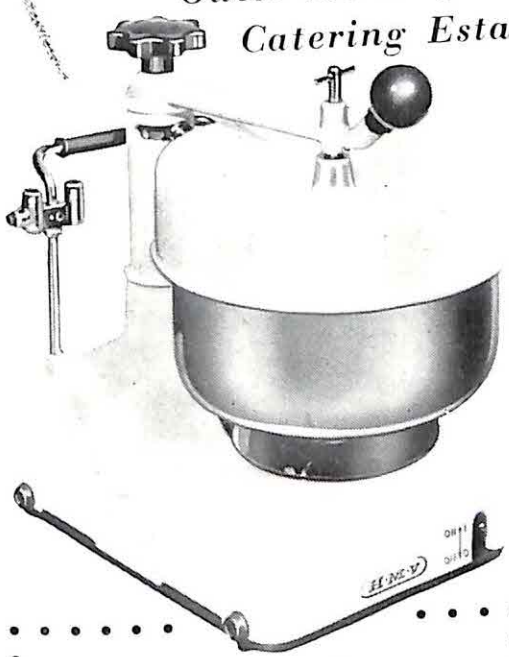
A FOOD MIXER

built to H·M·V *Standards!*

...for Hotels, Restaurants, Tea Shops, Guest Houses, Schools and all Catering Establishments



This new H.M.V. Food Mixer is worth three extra pairs of hands in *any* kitchen. Not only does it give very much quicker results with no more effort than it needs to turn a switch, it also gives far better results . . . *because* it ensures a consistently high standard of food preparation . . . *because* it involves less handling of the food . . . *because* unskilled labour can produce finished results obtainable only by skilled hands. The Food Mixer is finished in white enamel for ease of cleaning, and where essential, operative parts are of stainless steel. Mixing bowl capacity 6¼ Imperial quarts. **FREE**—Arrangements have been made with "Good Housekeeping" to provide a special Culinary advisory service to users of the H.M.V. Food Mixer.

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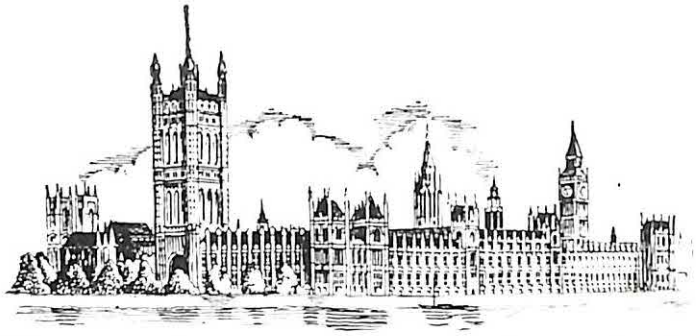

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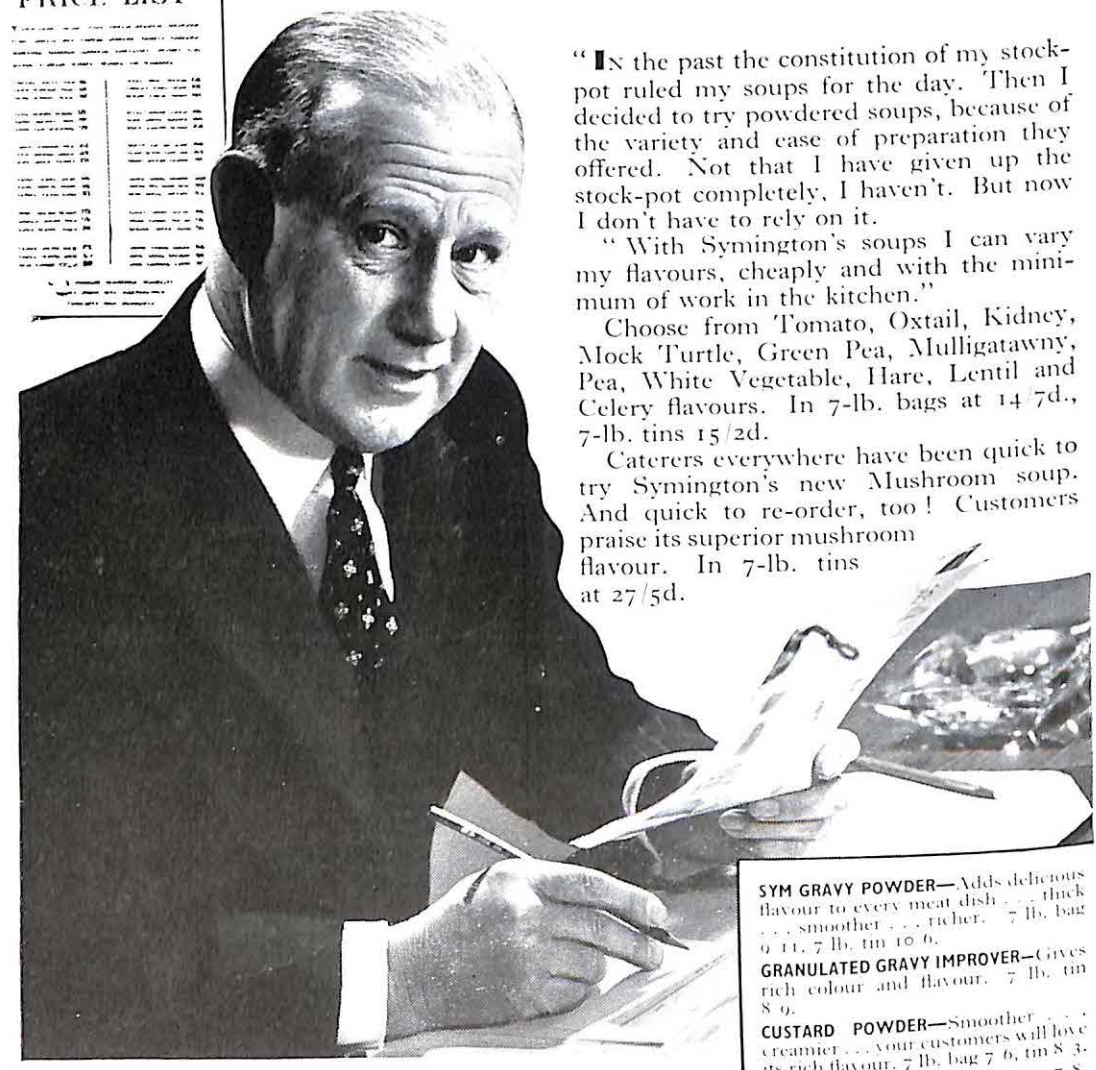

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School and College

SCHOOL & COLLEGE MANAGEMENT

Contents

Understanding the Value of Play—some suggestions for equipment that can be used in playground or playroom to give free rein to children's activities 286

Playgrounds Unconventional and Experimental?—some pictures of the Danish junk scheme. 288

. . . **Or Planned for Enjoyment** as in the recently opened L.C.C. South Bank play area 290

The Minister Reports—C. L. Berry reviews the Ministry of Education report on a year's work. 292

If you are planning a building extension or alteration, this article will tell you how the **Building Centre** can help you 294

Dr. R. E. Smith gives some statistics on the **Hazards of Bicycling** and offers some precautions 297

News Sheet—a new feature planned to give readers information about other schools' activities, administrative and social 299

The Repairs Bill—the Bursar's Charivari tackles some of the end-of-term financial problems 302

All Things Considered—in which F. A. V. Madden sets himself an essay on "Coronation thoughts" 304

Eating out—dietitian V. H. Mottram and housekeeper Mrs. Elizabeth Midgley give advice for the kitchen staff on planning and preparing "excursion" meals 306

Making Ice Cream—by Mrs. Doreen Davies 310

Text Book Review 314

Vol. 13 *No. 7* *July, 1953*

understanding the value

Children need to be destructive as well as constructive, to many objects as possible ; do our playgrounds and playroom

IT is interesting and encouraging to note the increasing understanding there is of the purpose and value of play. Not so long ago, play was regarded as the opposite of work; almost a negative thing. The schoolmaster took the lid off, relaxed his discipline, and the boys just let off steam. Now it is becoming widely realised that play, in the development of the child, physically, mentally and emotionally, has a vital and valuable part to contribute.

Some may say that it is hard to distinguish, these days, between schooling and play; for the younger pupil the whole day looks dangerously like a perpetual playtime. Certainly, within the school timetable, there is much more opportunity for activity. Children no longer sit and listen the day through; they're out on projects, busy in the workshops, absorbed in hobbies fostered by the school's many societies. Organised games, scouting, athletics, give abundant outlet to physical energies. Nevertheless, particularly in boarding-schools, we recognise the need for something else. We don't call it "free play," or "playtime" or anything that would make Prep schoolboys red to the roots of their hair with shame. We just recognise the fact that we should not attempt to organise every waking moment and leave it at that. There's leisure, some degree of freedom allowed for, even when the time-table from waking to lights out is thoroughly planned.

For such moments it is usual to have a common-room or playroom. Many schools go to a great deal of trouble and expense to ensure that this room is well-equipped with books and magazines; games—draughts, dominoes, chess, perhaps darts—are in evidence, and there may be a ping-pong table and perhaps a small billiard-table. Undoubtedly, such amenities are used and greatly appreciated. There is almost certainly a need for such equipment in every boarding-school. What a few schools are discovering, however, is the value of something more exciting and imaginative. Little boys will appreciate a room that is a seedy model of a man's club but they will be even more absorbed, happier, and the better for a playroom that makes more concessions to the fundamental needs of the child.

It is not necessary to be too theoretical or psychological about what those fundamental needs are—even the most disciplined little boys can be counted upon to make them apparent. They are obviously the need to be destructive, as well as constructive; to experiment, explore and handle as many objects as possible; to "make-believe" and to use their surplus energy in horse-play and ragging about. We can be smug about these obvious urges and contend that they are all amply catered for in the course of the school day. We may be sympathetic but feel that it is artificial to set aside only a certain and small part of the day for their satisfaction, and we may be right. Or we may be so aware of all the bubbling energy, creative and physical, there is in the children under our charge, despite all the efforts we make for its sublimation, that we welcome any suggestion that will afford an opportunity for letting off yet a bit more steam.

The last is most likely to be the general approach—if some schools have hit upon something that absorbs the boys for an hour or two on a dull autumn day, when little other activity is possible, let's hear of it! Now is the time when most of us are considering the equipment we shall need for relieving the monotony of the dark evenings indoors during the coming two terms.

In their choice of indoor play equipment,

# of PLAY

experiment, explore and handle as equipment cater for their needs?

some schools have chosen to follow the lead that has recently been given by the designers of outdoor playgrounds. Once, the best the municipalities had to offer in their parks and playgrounds were a few swings, see-saws and roundabouts, the whole enclosed within iron railings and presided over by a grim custodian of a pensioner. Following the experience gained in the Scandinavian countries, playgrounds are becoming less and less formal. A swing is a swing—but a playground well provided with materials, that some might call "junk," is a wonderful kingdom, full of endless possibilities for small boys. For indoor play a good lumber-room is infinitely more inviting than most common-rooms. Like so many ideas, the "junk playroom" in a school is only the application of a platitude.

The use of the word "junk" to describe an informal school playroom is a little misleading. It suggests that one has only to dump all the broken, unwanted objects one can lay hands upon into a suitable room and the school will have a wonderful playroom for the odd half-hour or wet afternoon. Something not unacceptable would result but a more worthwhile environment can be created if care and thought is given to the selection of informal play equipment.

It may be helpful to consider the chief categories of play and choose material to make all of them possible.

First, negative play. To some, this is sheer destructiveness. Whatever it is, it is better to have things that don't matter broken up than valuable pieces of school equipment that do. But such "destructiveness" is by no means as wholly negative as it may appear. Stripping some small machine, taking an old clock to pieces, breaking up batteries, unwinding electrical gear, certainly satisfies the destructive instinct, but there is an element in such activity of finding out, anatomising. One would not provide materials to meet this need that are not sufficiently complicated, that do not provide resistance and so a challenge. What are needed are things that don't wreck easily; what may begin as a desire to smash up will probably then end as a probe to find out. Clocks, watches, weighing-machines, switch gear, old vacuum-cleaners, electric motors, old radio sets, broken-down typewriters are all excellent and capable of giving a boy several hours of worthwhile play.

Secondly—and not so easily provided—are materials that are likely to stimulate creative activity, initiative and effort. Yet this class of play material is most important; a too junky junk-playroom is only too liable to degenerate into a rough house, "smashing," perhaps, but little else. It is hard to anticipate what will begin either a worthwhile group game, creative in its intent, or set one boy's imagination afire with grand schemes of making something. Boxes and cartons; the reject bobbins that can sometimes be bought cheaply in the North, where there are cotton-mills; match-boxes; tins; garden canes and twine; glue; paint; old wrapping paper . . . it is surprising what can be fashioned from the most unpromising material.

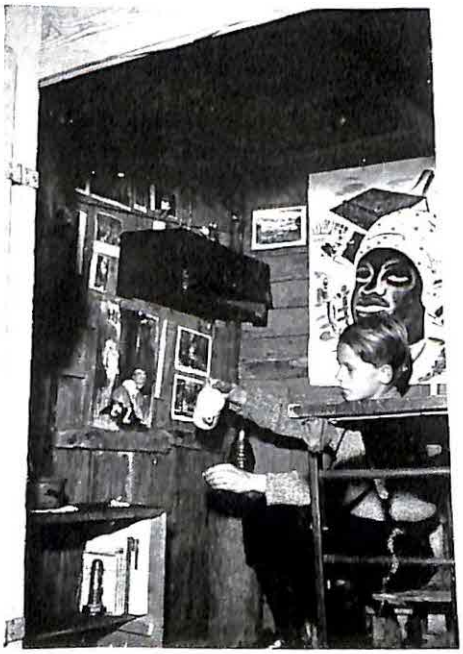
The third rough category into which the indoor play of young boys (and girls) may be divided is play stimulating to the imagination—games of make-believe. In some schools, we know, there is a boy-imposed censorship, even among the youngest, against "pretending." It smacks too much of nursery days. Nevertheless, it is

(continued on next page)

Play-grounds

THE Danish junk playground shown in these photographs is already famous. It has no equipment already constructed, but materials for building anything from a hut or wigwam to a wooden motor car are scattered over the site. There are also wooden structures to climb on and ropes to swing from. Nothing is organised—the children make their own entertainment and must in using these playthings surely have a sense of achievement that they would not find on a conventional playground swing? The only adult interference they meet is the kindly advice of a supervisor when a too daring construction threatens to collapse, or a "working party" cannot agree.

. . . Should they be unconventional



(*continued from previous page*)

an obvious need of all children up to and beyond the age of ten; it is a pity to suppress it entirely. The dramatic society and, to some extent, the Scouts, give rein to the urge to dress up and pretend, but the opportunities offered in the usual school are not numerous enough. A playroom can become, by convention, one of the places where the boys relax their own stern, self-imposed law. If there are hampers of old and interesting clothes (Old Boys can sometimes turn out most impressive military bits and pieces) it doesn't take long before hesitations are broken down.

In this same category, in a less dramatic form, comes the most common form of play by boys at school—play with models and mechanical toys. We have seen most effective sand-trays in a Prep school playroom for individual setting-out of toy soldiers, farm animals, model cars and planes. Also an old bagatelle-table, about eight foot by three, had been filled with

and experimental? . . . or ⇒

sand to the depth of about an inch and provided a most satisfactory place for a group project—villages, roads, airports, farms, were all laid out, populated and equipped during the course of a winter term. Like Topsy, it just grew—but it was excellent play from every point of view. Obviously, there had to be co-operation; respect for one another's territorial rights; group planning; all sorts of worthwhile disciplines were called out in what was "only messing about and playing."

It has been said that the British boy has so many toys that he doesn't know how to play. The usual mechanical toys are expensive and, unless they are used in games of phantasy, give a remarkably small "play return" for their cost. Things that can only be wound up to go serve only to stimulate a desire for novelty and breed boredom and restlessness.

Unless one has tried it, it is hard to believe what interest and pleasure can be got by a group of children from a miscellaneous collection of objects of everyday life. A school, too often, is completely devoid of the kind of things the average boy picks up and plays with when he is at home. Such play is domestic, and none the worse for being that.

The playroom one should aim to equip, at little or no cost, should be like a wonderful attic—most of us remember one such place, where a wet afternoon passed as though by magic while we sat glancing at old copies of "Punch," perhaps, or tried on uncle's moth-eaten riding-breeches, or tried to make an old clock tick again. If possible, let it be a bit away from the main stream of school life and not, if possible, ostentatiously supervised. The eye of an adult is very freezing to play of this kind. Such a playroom, if you have the understanding to go to the trouble of equipping one, will more than pay good dividends during the dull weather and dark evenings of the two terms that lie ahead.

planned for enjoyment

a covered place and an old van the Chief Officer of the Council's

IN complete contrast is the newly constructed L.C.C. playground on the South Bank. Here playthings are ready-made, but have the merit of being more daring than the usual playground fare. The sandpit, for example, takes the shape of the hull of a three-funnel Atlantic liner. There is also a gaily- and multi-coloured climbing block of stone, with jumping heights up to 6 ft., in a sand bed. A concrete igloo has tunnels twisting through 18 ft. A wooden railway locomotive has room for at least two children in the cabin. There is also a log pile, marked-out hopscotch pitch, and for rainy days which has been repainted. It is the work largely of Parks Department.

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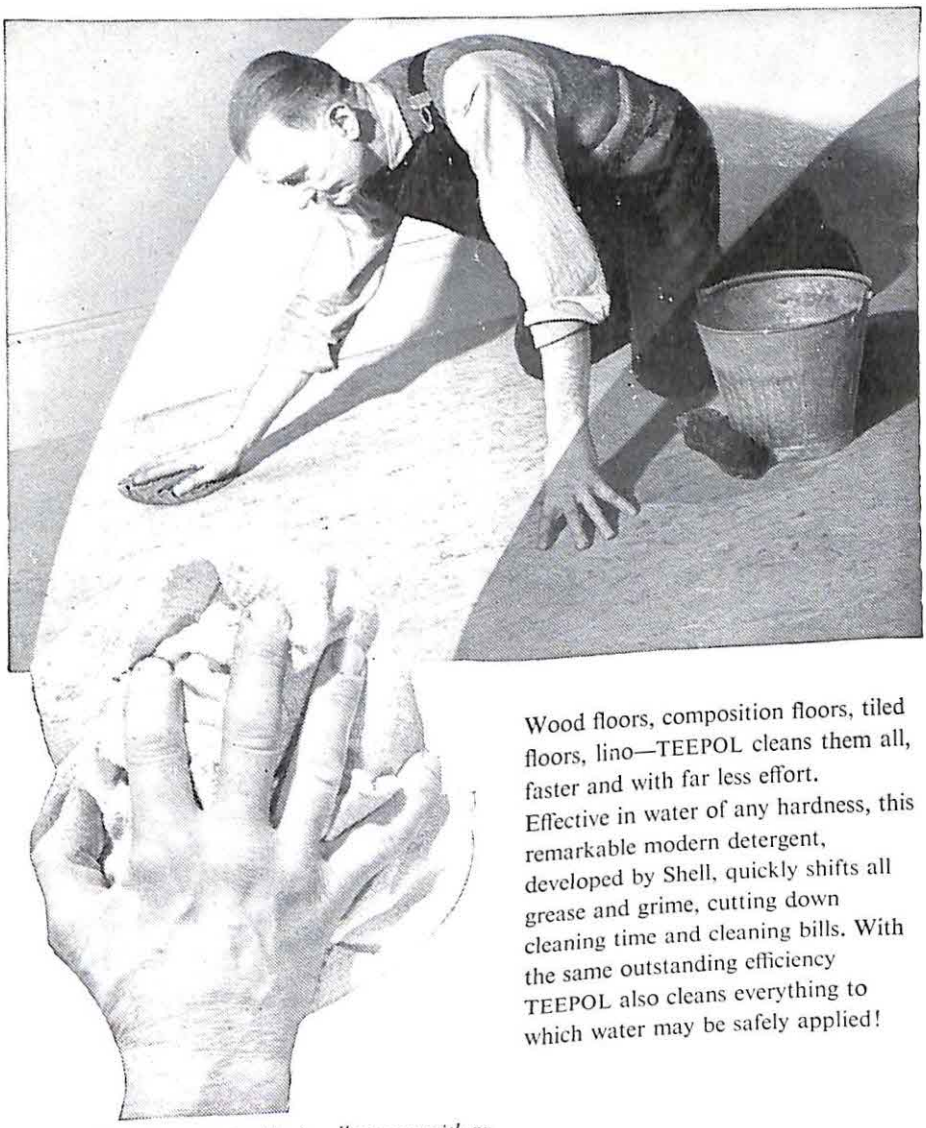

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THE MINISTER REPORTS . .

C. L. Berry reviews the Ministry of Education 1953 report —an account of progress that is particularly topical in view of the recent report of the Select Committee on Estimates

ONE of the duties imposed on the Minister by Statute Law is the submission of a report to Parliament every year. Section 5 of the Education Act, 1944, lays it down that:—

> "The Minister shall make to Parliament an annual report, giving an account of the exercise of and performance of the powers and duties conferred upon him by this Act."

Thus it has once more come about that Her Majesty's Stationery Office has published, and has on sale at five shillings a copy, "Education in 1953, being the Report of the Ministry of Education and the Statistics of Public Education for England and Wales" presented by the Minister to to Parliament "by Command of Her Majesty, June, 1953." It is cheap at five shillings and, while most educational workers will find in it much that does not seem to concern them, none can fail to find much that is interesting and even illuminating. The Report and Statistics run to 180 pages. The Minister, in an introduction of four and a quarter pages, draws attention to some of the principal features of the 56-page report which follows and summarises the main conclusions. The report itself follows the order and plan customary since 1948. There are chapters on Primary and Secondary Education, Further Education, Teachers, Buildings and Supply, Special Services, University Awards, Information and external Relations, Wales and Monmouthshire, and lastly the Museums. Readers not engaged or interested in educational administration will lose nothing by skipping Chapter IV on Buildings and Supply. The need for a separate chapter on Wales and Monmouthshire may be questioned, but Welshmen are probably unanimous in favouring this complication of a national review. To those who revel in statistics there is meat indeed in the 96 tables which form Part II of the book and covers no fewer than 113 pages. Fortunately, there's some provision also for those simple souls, doubtless with rather low intelligence quotients, who prefer pictures to statistical tables. There are four charts which are visual aids to the understanding of the Minister's statistics on children in school, the development of further education, the growth of day-time release, the training of teachers, and six years' progress in educational building. Chart No. 1—which really consists of three charts—shows the number of senior children in maintained and assisted schools in January of each of the years 1947 to 1965, of junior children and of infant children. Nothing can so effectively show the magnitude of the tidal bore which is sweeping through our schools and just why infant schools next year will be more overcrowded than ever before, and why the same situation will be evident in junior schools in 1957-58 and in senior schools (secondary schools of all kinds) in 1961.

Surprise increase in number of pupils

In January, 1952, there were 230,000 more primary and secondary school pupils than in January, 1951, an increase slightly larger even than was expected. Well over a thousand new school buildings were under construction at the beginning of the year and some 490 were completed and brought into use during 1952. Proposals for 344 new schools were approved. Nursery education suffered a setback as a result of the Minister's call for economy at the end of 1951. Seven local education authorities proposed to close thirty of their nursery schools. At the Minister's request these proposals were reconsidered and eventually only fourteen schools were closed. It may be added that since then there have been more restrictions on nursery education.

During the year 108 schools were closed. To many people it will be a matter of concern that 61 of these were in rural areas, even if their premises were poor and their pupils few. The expanding school population was met by an increase of teachers. There were actually 39,500 more teachers employed at the end of 1952 than there were six years before. This huge increase —5,000 more even than was expected—is really remarkable at a time when shortage of teachers is so constant a complaint. Many authorities were short of women teachers, but men teachers were plentiful. The total number of children in primary classes increased from 108,629 to 112,702. The increase in the size of secondary classes was but slight. Obviously, the increase in the average size of primary classes was due to the entry into school of the larger number of children born in the years after the war. On the purely scholastic side the Minister is able to report her approval of certain recommendations of the Secondary School Examinations Council. That body considered —what, indeed, most educationists had proclaimed — that greater flexibility was needed to meet the special needs of children whose abilities, future plans and careers justified their taking the examination before 16. It was also recommended that "distinctions" should be recognised and awarded at advanced level in the General Certificate of Education.

The chapter on Further Education records two decisions of very great importance. The first is the raising of the rate of grant on certain types of advanced courses and research work in technical colleges from 60 to 75 per cent. The increase applies also to capital expenditure. The second is the recognition of science and engineering departments of Loughborough College as a self-governing, direct grant National College of Technology. It might have been expected that Loughborough would have been given the status of a Technical University and thus the separation of its component schools could have been avoided. Student members appear to have reached stability so far as evening work is concerned. A fairly general raising of fees for further education seems to have affected adversely only the non-vocational and recreational classes. "Classes for ballroom dancing disappeared in many areas and were greatly reduced elsewhere," says the Minister. A brief paragraph records further restrictions on financial expenditure on the service of youth, both centrally and locally. As a result "some useful but not essential work had to be given up." Even so, direct grants to national headquarters of voluntary organisations were raised by some £10,000 to £180,160.

The chapter on Teachers, their training, supply, remuneration and superannuation, is brief but significant. In the year ended March 31, 1952, graduate teachers increased in number from 34,100 to 35,500. Thus there were enough graduates to make good the loss caused by retirements and deaths. "There was," states the Report, "an appreciable increase in the number of graduate teachers in the schools with degrees in mathematics and science, mainly on account of the larger number of those who completed their professional year in 1952." Even so, the supply of science and mathematics teachers did not increase rapidly enough to meet the needs of schools in the years ahead. The position is none the less far better than it is often represented to be in the Press and on many platforms, where somewhat fantastic accounts are given of the "flight of the graduates" from the teaching profession. At the end of 1952, says the Report, some 100 arts graduates were known to be without permanent employment. It may here be added that there is to-day a still greater surplus of such graduates seeking employment in the teaching profession. The Report does draw attention to the very startling fact that the teaching profession "is already claiming some two-thirds of the girls who leave school at the age of 18 and do not go to universities." One may well ask whether the profession can or should claim more, having regard to the needs of other professions. This question is not raised in the Report. It is indeed suggested that more girls could be recruited from the same source if more stayed on at school. In the meantime the teaching profession "must remain heavily dependant on young women who become interested in teaching only after they have spent some time in other occupations." The Minister obviously regards these entrants as only second best. Many who are in a good position to judge would, however, say that these older recruits are very good material. In the colleges as well as later in the schools their maturity and wider experience proves to be a real asset. The Minister herself recognises this in a later sentence:

"The presence of these students alongside those who come direct from school is a challenge to the colleges which can be met only by flexibility in both work and discipline."

The chapter concludes with a rather

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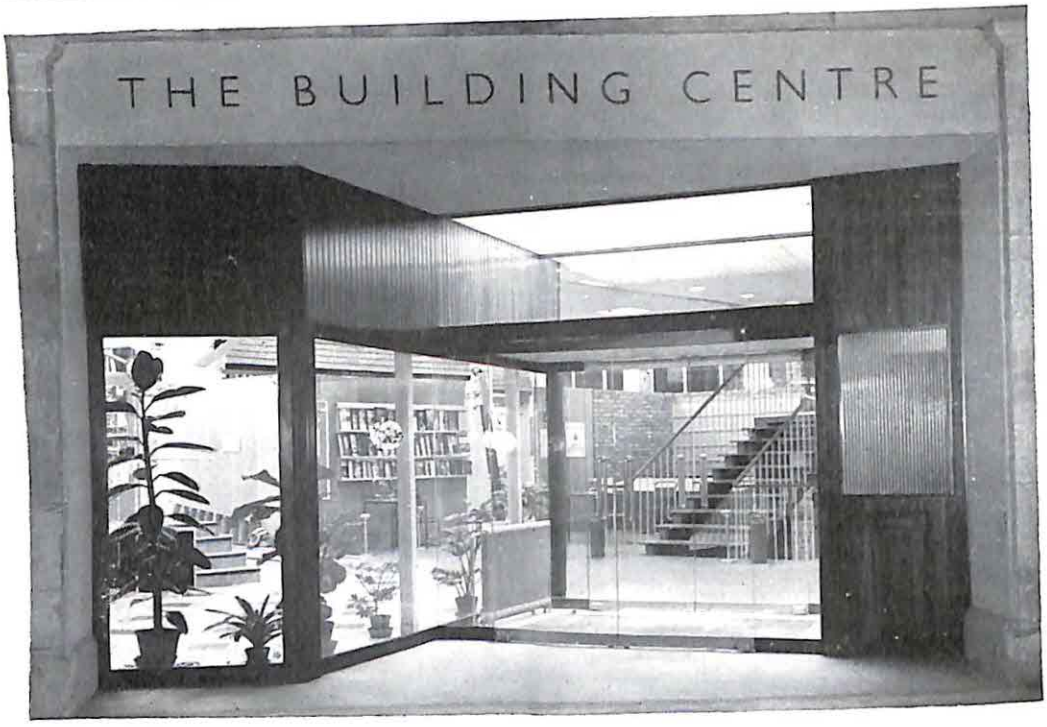


"School Management" pays a visit to a permanent exhibition in London that should be a "must" for every headmaster or headmistress planning building alterations or extensions

WHEN in London for the day, or for a short visit during the holidays, all headmasters and bursars have their traditional ports of call—a favourite bookseller, the club, the accountants, one of the scholastic agencies, the school tailor's. . . . There is certainly one more place that has a very strong claim to becoming a "must" for anyone with a few hours to spend in London —the Building Centre.

The Building Centre, in Store Street, off the Tottenham Court Road, was founded in 1931 by a committee of builders and architects so that architects, builders and the public might see examples of the most up-to-date products from every branch of the manufacturing world connected with building clearly and intelligently displayed all under one roof.

Anyone who has merely added a bicycle-shed to his school buildings knows how difficult it is for the layman to specify exactly what he wants—even when he does know clearly what he wants. Technical terms, trade names, the difficulty there is in describing to technical people in untechnical language what one wants, all baffle the would-be builder. We have heard of a headmaster who was reduced to taking his builder for a twelve-mile drive in his car so that he could visit a certain wall and point out exactly what kind and shade of brick it was he wanted used!

The Building Centre is designed to afford to anyone in such a predicament the opportunity to be able to say, without effort: "Look, just like that!" to his architect or builder. Better still, the layman, innocent in matters of building and equipping, can go to the Centre some time before he faces his experts and look around for himself. Bricks, roof-tiles, metal window-frames, sanitary fittings, doors, floor-making and covering materials, paints and distempers, gas stoves, electric appliances for heating and for the kitchen, boilers and central-heating plant . . . everything you can think of, and possibly want, is there for quiet consideration, for comparison and for inspiration.

The Building Centre is open free to all interested; it has no financial interest in sales and it is not possible to purchase or to give orders for goods at the Centre. There is, however, an information-desk, and the visitor can come away with all the literature, brochures and addresses that he wants.

On a first visit one may feel a trifle lost and in need of a guide. We have grown so used to exhibitions where there are always salesmen ready to swoop down, praise, and demonstrate their own exhibits. It becomes habitual, too, to look at price-tickets first, rather than things—only too habitual. The quiet of one of the Centre's floors, where gleaming equipment stands to talk for itself, soon becomes attractive.

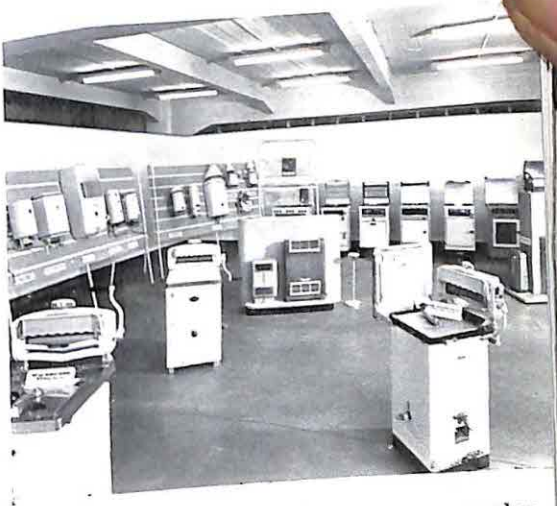
One can have a long discussion with a colleague over the merits of various solutions to a current school problem; one can research in a calm and quiet very similar to the atmosphere to be found in a library. But one is not reading about things — the things are there to be seen, handled, opened, touched, criticised. The Centre is the happiest of hunting grounds.

There is a technical staff available to give unbiassed information and assistance if required, but they do not advise on architectural or building practice. The Centre may be consulted by correspondence, telephone or (best) during a personal visit. It is not the Centre's task to express opinion, favourable or otherwise, upon the performance, value or æsthetics of equipment displayed, but its staff are permitted to say where various materials and equipment are in use, so that anyone interested may make their own inquiries as to performance. Here is an opportunity for school to get into touch with school and learn from one another's experience.

No collection of materials, equipment and fittings in current production can hope to be comprehensive. At the Building Centre they attempt to have on display a wide range of standard materials, such as timbers, bricks, stones—the grammar of any building. But—the most important point about the Centre—the majority of articles and materials on display are constantly being changed. Through the Centre's rooms pass all the latest inventions and the newest products. It is not, therefore, "an exhibition" that anyone can claim to have "seen." Not being a static collection, we are making no attempt here to describe or discuss in detail what we saw on our last visit; it may not be there for you to see if we can persuade you to pay a visit to the Centre in the coming holidays. The Centre's greatest value lies in that it offers a unique opportunity of keeping in touch with all the latest materials and equipment.

Every exhibit is labelled with the name of the manufacturer, who is required by the Centre to set down full information about his product on a standard form, which information is available to inquirers at the information bureau. There is nothing "shop-windowish" about the way in which manufacturers' products are displayed in the rooms of the Centre. When appropriate, these products are "built in." The very floors the visitor walks upon are displays; one passes from X's tiles to Y's parquet, and a small plate inset makes the facts clear. The stairs from one floor to another are exhibits; so are the wall surfaces. In general,

Above: **The Rural Industries Bureau exhibit has panels showing about 30 different kinds of brick.**



Above: **If you are looking for a new cooker, there are plenty to select from here, large or small.**

Below: **Exhibitions of particular sections of equipment are held regularly—this lighting display is typical, and demonstrates latest fittings.**

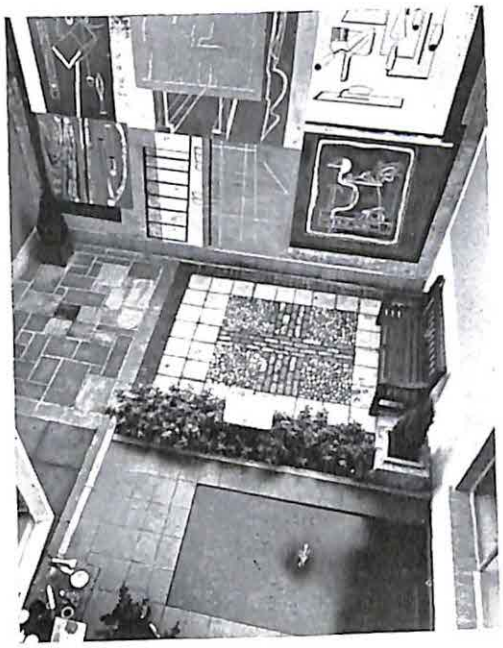
continuing THE BUILDING CENTRE

the Centre exhibits the "universals," the fittings and substances appropriate to all kinds of buildings. Schools, homes, offices, must be heated, lit; all must eat. The heating appliances, light fittings and cooking equipment on display, therefore, are chosen with care and cannot fail to interest a range of visitor that is almost universal. The Centre is a place for the newly-wed to linger and plot and dream over the papering of a single room; it can be of equal interest to the school considering whether to refloor a small store-room or enlarge itself by building a whole new wing.

Any group of buildings, such as a school, is always requiring some alterations, repairs or extensions. A visit to the Centre can help with all of these tasks.

Headmasters and headmistresses in the North, who occasionally sigh for the opportunities denied to them because of the miles between them and London, will be interested to note that there is a Building Centre in Scotland, planned on similar lines with the assistance of the London Centre. It is situated at 425-427 Sauchiehall Street, Glasgow, C.2.

It is the purpose and aim of *School and College Management*, of course, to help schools to keep in touch with what is new and promising in the way of suitable equipment, not only in our editorial pages but in the pages of our advertisers. Our Service Bureau exists, too, to help to solve the more urgent query. We are very ready to admit the help we receive in this task from the Building Centre. So often, however, to our information and advice we should like to add the words: "But you should see it for yourself."



This attractive artwork in different colours of cement is found in a small courtyard in the Centre, and is made from "Cementone."

The Building Centre enables you to see things very clearly for yourself. Term-time, we know, offers the busy headmaster and headmistress and bursar little or no time for visits to London. But, if we might suggest a holiday-task for the setters of holiday-tasks, it would be a visit to Store Street at some convenient time during the coming holiday.

Science on the March

Unit one—The Air and you—pp. 64—2s. 6d.
Unit Two—Water and Life—pp. 32—2s.
(Longmans, Green and Co., Ltd.)

THESE attractive little books are the first two units of a series of six which have been adapted from part of *Science on the March* by J. A. Clark, F. L. Fitzpatrick and Edith L. Smith and published in the U.S.A. The adaptation has been made by C. H. Dolinson, M.A., Professor of Education at Reading University. Some new material has been added and Sir Graham Savage has written the foreword.

In addition to forming the basis of a course in Science, the series is designed to foster the habit of accurate reading and to introduce the reader to the scientist's way of thought and experiment.

The first chapter of Unit One serves as an introduction to the series and gives examples of recent scientific discoveries, illustrates the method of the scientist and indicates the far-reaching effects of his research on our food, health, travel and work.

Unit One also deals with the study of *Air* and Unit Two with *Water and Life*; both books present their subjects by posing questions and deducing the answers by drawing reasoned conclusions from the results of experiments which may be carried out in most school laboratories, thus teaching the child to extract reliable data from experimental observations.

Both works are attractively produced in large, clear print and are illustrated by many well-chosen photographs.

The companion volumes to be published are *The Weather and the Earth, Life and Food, Health, Energy and Engines*.—R.A.E.

Dr. R. E. Smith examines

the hazards of

BICYCLING

I HAVE chosen my title, or rather borrowed it, from the Statistical Bulletin of the Metropolitan Life Insurance Company of New York (April, 1953). The reason for this choice is that we should consider how we can prevent the deaths which, as will be shown later, are greater in England than in the U.S.A. The American statistics are that: "Bicycle accidents take approximately 600 lives a year in the United States. About two-thirds of the fatal injuries occur in the months from May to October, when the weather is most favourable for outdoor recreational activities. Nine out of every ten deaths are among males: boys at ages 5 to 19 years constitute 70 per cent of all the victims in both sexes. Collision with a motor vehicle is by far the greatest bicycle hazard, being responsible for at least four-fifths of the fatalities. The remaining proportion is due mainly to falls from bicycles, running into fixed objects, collision with railroad trains at crossings, and fatalities among pedestrians who are run down by, or collide with, cyclists."

Table I shows the risks involved and the vulnerability of the male sex.

It shows that youth and old age are vulnerable. Several factors play a part in causing bicycle accidents, but the most important, it appears from the insurance claim records, are the hazardous practices of cyclists "cutting in" in front of a motor vehicle and crossing from one lane to another and were the most common violations. Carrying an extra passenger on a bicycle

TABLE I

Number of Deaths from Bicycle Accidents by Sex and Age according to Type of Accident. Industrial Premium-Paying Business, Metropolitan Life Insurance Company. 1946 to 1951.

Age period (years)	MALES						FEMALES				
	Total	Collision with motor vehicle	Collision with fixed object	Fall off bicycle	Hit by bicycle	Other and unspecified	Total	Collision with motor vehicle	Fall off bicycle	Hit by bicycle	Other and unspecified
All ages ...	259	224	6	18	5	6	40	29	8	2	1
1 to 4 ...	2	2	—	—	—	—	5	3	2	—	—
5 to 9 ...	36	31	1	2	—	2	24	20	4	—	—
10 to 14 ...	127	111	4	9	1	2	6	4	1	—	1
15 to 19 ...	46	43	—	2	—	1	1	1	—	—	—
20 to 29 ...	2	2	—	—	—	—	—	—	—	—	—
30 to 39 ...	2	1	—	1	—	—	—	—	—	—	—
40 to 49 ...	7	7	—	—	—	—	2	—	1	1	—
50 to 59 ...	15	12	—	1	2	—	1	1	—	—	—
60 to 69 ...	18	11	1	3	2	1	1	—	—	1	—
70 and over	4	4	—	—	—	—					

and lack of caution at street intersections or around curves also contributed considerable numbers to the death toll. Among the other hazardous practices of cyclists were: failure to exercise due caution when coming out of a driveway or alley, riding around or between parked cars, riding too far from the kerb or on the wrong side of the street, and using bicycles in poor mechanical condition and lacking proper equipment. In the relatively small proportion of instances where the motor vehicle driver appeared to be at fault, speeding or drunken driving was reported as an important factor.

Analysing accident statistics

The accidents other than those arising from motor vehicle collisions were due in good measure to falls from bicycles. A few of the victims were drowned when they lost control of the "wheels" on river banks, while some fell as they pedalled across a narrow bridge, around a construction site, or down a steep hill. In some cases the insured was merely cycling in the street and fell because of a broken or slippery pavement; others were injured because of a collision with a kerb or tree. About 2 per cent of the fatalities were among pedestrians run into by cyclists.

In Great Britain, where it is estimated that there are 12,000,000 pedal cycles, there are approximately 800 cyclists killed and 45,000 injured. Of the killed, 25 per cent are under 15 and 50 per cent under 21. Males outnumber females by four to one. July is the peak month. The worst times for children's accidents are 4 to 5 o'clock on Mondays to Fridays and 12 to 1 on Saturdays—80 per cent occur in built-up areas, but those occurring outside are three times as often fatal.

70 per cent are collisions with other vehicles;

10 per cent are collisions with pedestrians; and

15 per cent are due to cyclists' falling off without collisions.

The police are of the opinion that *inattention* leads to more accidents than any other single fault of pedal cyclists.

Peak casualty periods

Since writing this, *The Times* of June 8, 1953, tells us: "Casualty figures for boy cyclists at week-ends during May were especially high. On Sundays in this month the risk to a boy cyclist aged 15 to 16 was about 30 times greater than the risk to a boy pedestrian of the same age. Children who ride bicycles must be trained to use the roads safely. This means they must know the Highway Code and see that their vehicles are roadworthy."

I cannot give exact figures for schools. My own experience, I am sure, is not typical, i.e., one boy in the holidays was killed because he ran into the side of a pavement, his near-side pedal hitting it, and he fell into the road and died as the result. Accidents were numerous, causing multiple abrasions and sometimes concussion.

What policy should schools adopt? The aim is clear that cyclists should be taught to ride so as to be no danger to themselves, and other drivers should drive so that cyclists are not endangered. That may seem a shibboleth, but putting it into practice is full of problems.

Children go to school in this country at the age of 5. Some ride bicycles before then, others tricycles, which are equally full of dangers. At what age should a child be allowed to use the public highway? My own opinion is 7, and then not unless he is roadworthy and accompanied by an adult. Even then we are not past the age of danger. I quote from "The Problem of Road Safety for Children," a pamphlet prepared by the Royal Society for the Prevention of Accidents, to whom I am grateful for much information and indeed for all the British statistics quoted. In this pamphlet it is stated: "The teen-agers are usually the safest of pedestrians, but very vulnerable when cycling. This age-group can do much by improving their cycling habits, and by their example and guidance they can help to keep young children away from road dangers. If given suitable responsibility, they can in the main be trusted to justify it."

Their main cycling faults are due to sudden swerves, especially when turning right or overtaking; carelessness at road junctions; and loss of control due often to riding machines which are unsuitable or not roadworthy, particularly in respect of brakes. The Society's schemes of a "Cycling Safety League" and the "Cycling Proficiency Test" are most valuable.

Teen-age Teams can most usefully be enlisted in the Children's Safety Campaign. Their pledge might be on the following lines:—

"I promise always to:—
Obey the Highway Code when cycling or walking;
Help to keep young children from road dangers."

(To be continued)

Newsheet

—a new feature which will appear each month and is designed to tell you what other schools are doing—from celebrating a centenary to building a new school.

EACH month we aim to give readers news of projects planned or accomplished by schools of all kinds. We believe that what other schools are doing is more than gossip; information and inspiration are to be found in accounts of difficulties met and overcome. You are invited to send to the Editor news of projects, large or small, in hand or completed; such news is always welcome.

* * *

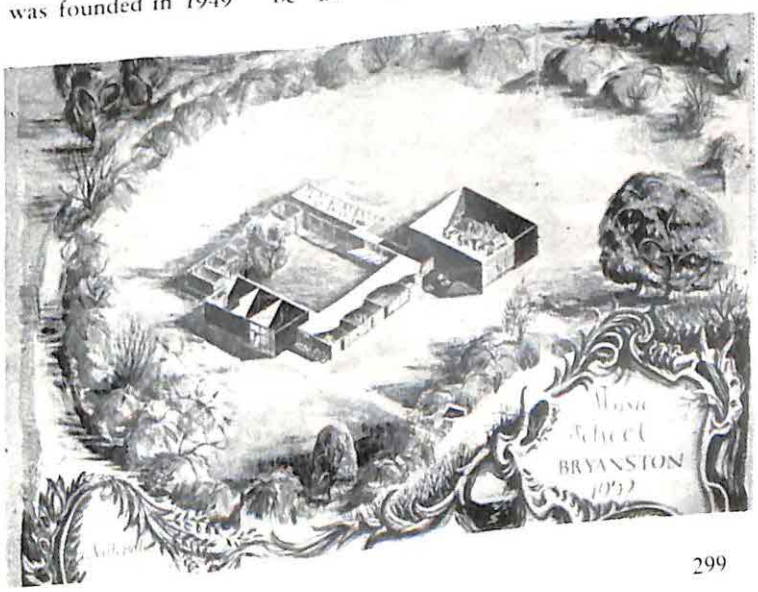
IT is now easier to build, to improve and to convert school premises than it was in the years following the war. It is very obvious that most schools have work in progress, or work planned. But, if it is easier to build, it is certainly no easier to find the money to pay for such building.

Kendal High School for Girls has set about raising £1,500 for a new building in an interesting way.

The School, lying under the shadow of Castle Hill and Kendal Castle, was originally built for 300 girls but now has 460 on the books. The School's needs, both in buildings and amenities, have therefore increased. The finding of the money for many of these needs has been undertaken by a very active Parents'-Teachers' Association. This Association was founded in 1949 and has a present membership of 333. It works in the closest co-operation with the Headmistress, Miss M. E. Hazell, and the School Governors.

This Coronation Year found many schools without a worthy flagpole. At Kendal the Association provided one in good time. The Association has also provided a film projector, an epidiascope, and a full-size hockey pitch which should be ready for use next term. The parents are not outstandingly wealthy; all these badly needed amenities have been paid for out of money raised by giving dances, socials, dramatic shows. The spirit behind the Association is well illustrated by the fact that, in stoney Kendal, many of the fathers have themselves assisted in the hard work of removing surface stones from the proposed new hockey pitch.

Probably the School's greatest need is a library. At present the books the School has are housed in a corridor, a classroom, and along the Hall balcony — not by any means a satisfactory arrangement. To commemorate the Coronation, the Parents'-Teachers' Association decided to raise the money to build a worthy library. The target set is £1,500. The proposed building will be an extension of the present school



This is how Bryanston School's latest project—a music department—will look when it is finished. It is being built on a five-year plan.

premises, probably in accordance with the Ministry of Education's pre-cast unit specification, but the final form of the library will be a matter for the Governors, the Director of Education, and the Westmorland County Council's architect. The Association's task is the first and all-important one of finding the money.

* * *

How does a school set about launching an appeal for such a sum? It is not until such an occasion arises that a school realises how many friends it has, and how important it has been (from every point of view) to have kept firm the bonds between the school and its old pupils.

After a letter had been drafted, setting out the School's need, and making an appeal above the Headmistress's signature, Kendal High School for Girls found that it had some 2,800 members of the "School family." At the end of April last all these letters were sent out to everyone on the School's records for the past thirty years, and every letter was personally signed by the Headmistress.

The response within the first fortnight was something over £275.

The Association realises that a paper appeal, though encouraging, is not likely to raise the full sum required. It plans, this month, "something really special" in the way of an Elizabethan Garden Fete. During the winter months it plans to have socials, whist drives and dances—all bringing in, it is hoped and confidently expected, very useful sums towards the library fund.

All the "estates" that are, or should be, concerned with the welfare of a school and its good management are active towards this end. The Old Girls have joined forces with the Parents'-Teachers' Association. The girls at present in the School are enthusiastic; during the Whitsuntide holidays they spent the time doing "jobs for bobs." The Mayor of Kendal has personally associated himself with the appeal.

In short, Kendal knows that the Girls' High School badly needs a library, and most of Kendal is determined to help the School to help itself to get one.

* * *

IT is not unusual for a school to find that projects half-completed before the war must now, most urgently, be finished. Liverpool College, the only Merseyside school not receiving financial aid of any kind from either the Ministry of Education or Local Authorities, was caught by war in 1939 with a new junior wing completed and the senior school, in the old buildings, some two or three miles away. War forced the senior school to join the junior in improvised accommodation.

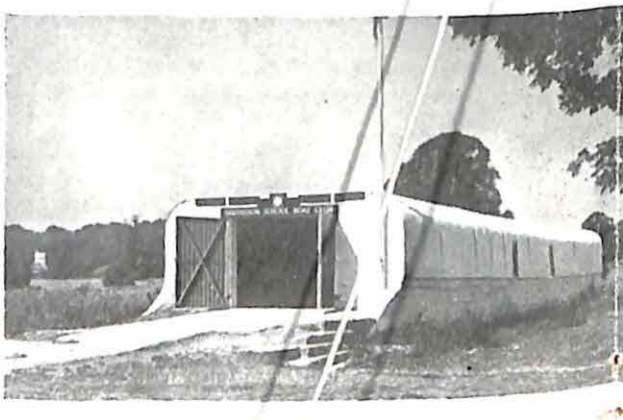
In spite of higher fees the numbers at Liverpool College have increased from 380 to 670 to-day. The completion of the buildings planned nearly twenty years ago is most urgent. An old pupil had left £8,000 for an assembly hall but, at present prices, that is now a quite inadequate sum.

Liverpool College has launched an appeal to all friends of the school. "We venture to suggest that it may be difficult adequately to respond to this appeal out of income. This is an appeal for capital; if possible, please meet it out of capital."

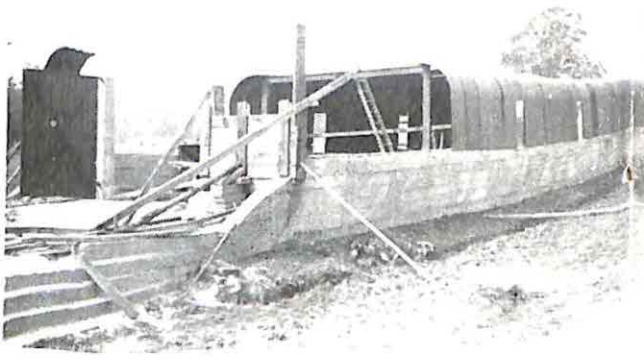
* * *

YET another way of raising funds by appeal is to plan projects on a long-term policy, giving those who wish to contribute a period of years over which they can make payments. Thus the sum given is not so large and frightening for the donor if split up. This is what Bryanston School are doing. Or rather, part of what they are doing, for lump sums are not discouraged, and gifts of building materials are also appealed for.

Their project is to build a music school.



Two of Bryanston's previous "pioneer" achievements b[y]: and construction of an observatory, bo[th]



H.M. Inspectors, visiting the School last year, commented on the inadequacy of the music arrangements. But school funds are already committed to increasing staff accommodation and providing more classroom blocks. So it was decided to pass over the work of providing a music block to the Pioneers. That means that the block will be built with voluntary labour by the boys (work on the estates is part of the curriculum, but boys can choose whether they will work on projects such as these or on the farm). The work is estimated to take five years, and when we visited the School the foundations were already being laid.

The block is planned to provide very generous accommodation, with classrooms, practice rooms, offices for the staff, and adjoining these a concert room for orchestra rehearsal, etc. The site chosen is a plateau beside the main school building, very conveniently surrounded on all sides by trees—a considerable natural aid to acoustics.

Total cost of the project is just over £4,000. To launch an appeal to the Friends of Bryanston, the Headmaster has prepared

ve been the building of a boathouse for the school boat club
n shown in construction and finished.

The Decca large-screen projection television set.

a leaflet in which we particularly like the line: "I therefore ask all those who have any money they can spare after paying school fees to consider helping us"—a tactful indication that parents' financial problems are not overlooked in the face of the more superior ones of the School. Three alternatives are offered to would-be contributors: they can either pay so much a year for seven years, a lump sum, or give the School some of the materials required. These are listed in complete detail in the leaflet, and are given below:—

	£	s.	d.
Cement: 46 tons at £5	230	0	0
Sand: 110 yds. at £1	110	0	0
Aggregate: 120 yds. at £1	120	0	0
Hardcore: 100 yds. at £1	100	0	0
Lime: 4½ tons at £5	23	0	0
Building paper: 3 rolls at £8	24	0	0
Fabric reinforcement: 600 yds. at 2s. 6d.	75	0	0
Rod reinforcement: 2½ tons at £40 ...	100	0	0
Floor tiles (to corridors): 440 yds. at £1	440	0	0
Paving slabs: 380 yds. at 5s.	95	0	0
Wood floors (for rooms): 500 yds. at £1	500	0	0
Timber (for windows): 4½ stds. at £125	562	0	0
Glass: 2,650 sq. ft. at 1s.	133	0	0
Concrete blocks: 850 sq. yds. at 10s.	425	0	0
Doors and fittings: 34 items at £5 ...	170	0	0
Plywood: 4½ sqrs. at £4	18	0	0
Wood wool: 680 sq. yds. at 10s. ...	340	0	0
½-in. insulation board: 5,300 sq. ft. at 7d.	155	0	0
Hardboard: 700 sq. ft. at 8d.	23	0	0
Roofing felt: 2,000 sq. yds. at 2s. ...	200	0	0
Paint: 84 gals. at £2	168	0	0
Total	£4,011	0	0

Bryanston has on its side the fact that it can boast of very enterprising past projects. Readers may remember that last summer we printed an article on the Greek Theatre, a photograph of which appeared on the front

(*Continued on page 311*)

THE REPAIRS BILL

How long can a school "make do" with furnishings? . . . When does a repair become a replacement? These are some of the problems Bursar's Charivari faces this month.

SAUL PETT suddenly says: "My trouble is that any little job will touch off a chain reaction involving other jobs." How true that is in a bursar's daily round. There is a leak to investigate and so in comes the plumber, but where it has dripped unobserved for ages the floorboard has rotted and so you call the carpenter who, on taking up the boards, finds an inspection-box with no lid and very damp. The electrician is sure to be cautious and advise renewing a stretch of wiring, and by then the plumber has got his grips on the ancient pipe-line and produced further work in half a dozen places along the system. When this happens in the Summer Term, the final one of the financial year, the bursar is not amused.

Where to draw the line?

I find it very hard to draw the line when half an hour's work here and a small replacement there will prevent a bigger job in six months' time. Obviously, one must stop somewhere because throughout a school's buildings such small extras soon mount into money when labour has to be hired. Where is the compromise for this situation, for a "stitch in time" does undoubtedly save "nine," yet the Scotsman's "many a mickle makes a muckle" is equally true with a bursar's eye upon a dwindling budget figure?

Another account difficult to control is a section of general repairs and renewals labelled the "Household Sundries" and spent by the housekeeper. Now the housekeeper is responsible not only for the small items such as teacloths, doormats and loose covers, to quote three out of a multitude at random, but also for such things as mattress repairs, floor coverings and curtains. In many schools this last item may not be important but in a school where every child has a single room and co-education is the system, then curtains are an important factor, and I am very glad to see furnishing prices are coming down.

To make my point about control: the other day a member of the staff brought along to my office a tattered curtain returned from the laundry and asked for a replacement. It was in ribbons so there was no question of "making do" for a little longer. The month was May and the decision had been made that there should be no further household expenditure upon replacements in furnishings. Yet here was a pupil's ground-floor room with rags instead of window coverings. To replace the curtain might cost £2 10s. or less, not a crippling sum. Staff see workmen about and hundreds being spent in another direction and cannot easily understand the bursar's point of view.

Each September, at the beginning of the school year, I let the housekeeper know how much she can spend in her household account. She weighs up the various needs throughout her department and very soon in the first term the bulk of the money is spent putting into sound order as much as she can with the sum available, setting aside sufficient to meet normal wear until the following September.

Being unreasonable

The case of the laundered curtain could no doubt be got over satisfactorily, either by not sending to the laundry in the first place or by borrowing curtains for the rest of the term from a little-used room elsewhere, but I pick this example to show that in these difficult and expensive days there comes a point where one must refuse even

apparently reasonable and sensible demands. Unless the Bursar can have the last word when it comes to matters of expenditure, it it is impossible for him to balance a budget these days if his school is struggling and independent. Salaries and scholarships are, of course, the headmaster's responsibility but working them into the budget is left to the bursar, and sometimes shocks are administered, but most good bursars have tucked away suitable shock-absorbers.

What parents expect

The decision not to replace the curtains met with strong opposition. First, the direct attack pointing out the value of new curtains when showing round prospective parents, and also that the Summer School shouldn't be allowed to see such poverty. Then the "value for money" approach—parents paying big fees expect a reasonable standard of living conditions. Also the school could not charge a child for tearing such aged relics, and this fact may become known among the wilder spirits with disastrous results! These approaches having failed, there is still left the appeal to the headmaster and the wearing down powers of continual attack. This latter technique includes commenting upon other expenditure, such as the "extravagant" replacement of the "thirty-year-old" office typewriter when we can't afford a pair of curtains, and so on, and so forth, loud and clear for the housekeeper to hear.

Preaching lower standards

It is hard to get people to comprehend the need for school economy—in their private lives, yes, but where school affairs are concerned it is not so easy for them to accept a lowering of standards. By this I do not mean a serious drop in standards but an end to some of the pleasant ways we have been used to in palmier days, which to-day must be termed luxuries.

A word on the cost of jobs about the school when you have no maintenance staff and an outside firm must be called in, for I believe it drives home my point that the bursar must to-day be in control as never before if we are to weather this storm. Pressure of one sort and another amounts to sabotage.

A small pane of glass 14 in. x 10 in. can cost 8s. 6d. to put in, which explains my habit of pressing with the fingertips a cracked one and crossing off my list of repairs any that are quite firm and safe even though the standard of appearance is lowered a little.

A general purpose room where damp has penetrated badly in the past and where small concerts are staged from time to time, was sorely in need of decoration. I called for an estimate, hoping to do it out this Easter holiday; the quotation was £35 for the minimum work necessary. There just wasn't that amount left in the budget for that type of work in that particular part of the school. We all felt so badly about this that I put a handyman on the job with distemper we had in stock and, to his credit, he did what he could with the bad plaster and made a decent job of the room. It is a second best, though, and the room will need re-doing in a shorter period than if it had been done professionally. This is false economy, you say; well, so it is, but it is the only economy if the money is not in the bank.

Using labour economically

This approach is dangerous business at times and needs frequent analysis in the bursar's office. Spend a little more, say some, because it's false economy to cheese-pare here. Sometimes it certainly is, but quite often it can be a trap for the unwary.

Back to the cost of jobs. The other day a W.C. went out of action, one of two separate ones serving a staff wing sleeping five. The job report came into the office and it was marked urgent because So-and-so liked to have a separate one. To call up a plumber, and his mate, for one small job would cost not less than £1 for labour, unless your plumber lives just around the corner. My practice is to gather a number of jobs to make a day's work either for plumber, carpenter or glazier, for what might cost me 30s. will then be done for 10s. My job is to decide what can reasonably wait and what requires immediate repair.

Another example of a lowering in efficiency standards amply justified to-day: a sash-cord breaks; if it is cut off neatly it will be usable until the carpenter comes for a full day's work.

Advice from Mr. Chips

My wife hates big black house spiders. One day a dear old colleague of mine helped me to chase one with a broom in our scullery. The spider dashed into a cranny and was lost. "Did you get it?" called my wife. I was just about to say "No" when "Mr. Chips" nudged me and called "Yes, my dear." "It's justified," he said, "and I've lived a lot longer than you!"

ALL THINGS CONSIDERED

F. A. V. Madden takes a little of his own medicine in setting himself a composition on "How we celebrated the Coronation."

CORONATION Term will leave many memories that will outlive much else that we might be supposed to have taught our children this year. If the Coronation has interfered with routine instruction to what has appeared, to those immediately concerned with examination results, an alarming extent, yet so magnificent has been the work of the B.B.C. and the film-makers that it would be difficult to justify any expressions of disapproval or regret. One may, I think, also reasonably hope that examiners will be prepared to make such allowances that the new Elizabethan age will not start by achieving the doubtful distinction of being the year in which the highest recorded percentage of candidates failed in the General Certificate of Education! Even if it does, the children of this country have surely learnt something that we could never have taught them from a text-book. To take only one very obvious instance, the whole history of Britain was crytallised in a unique way in the Abbey Service.

Less inspiring but great fun has been a coach tour of the Coronation route. I have just returned from one which I organised for the whole school. We packed into five coaches and set out at 8 p.m. We reached Trafalgar Square too early for the main illuminations but rather to my surprise we were able to keep more or less on the move up Regent Street, Oxford Street and down Park Lane. The Mall was, to general disappointment, closed to traffic and we made for Victoria and Westminster. We met the real jam there and were stuck in Victoria Street, which was itself by comparison very dull and drab, for an hour. We were eventually rewarded by our view of the Abbey and the Annexe, and most superb of all, the view of County Hall over the river as we crossed Westminster Bridge. These last sights were of an unforgettable beauty. I shall not forget, either, the cheerfulness and camaraderie of the coach-drivers. Ours told me he had been on the job for a fortnight; enough, one would have supposed, to have broken the temper and spirit of any man. But like the other drivers we were so often greeting in the queue, he was cheerful and courteous, finding time (which was not so difficult) and energy to leap from his cabin and assist a private motorist in front of us, who kept threatening to break down with carburettor trouble. If all the coaches of England seemed to be in the West End of London, so did all the school children. Hanging from the coach windows, and where they could find open roofs, they engaged each other and the pedestrians in constant badinage. Hands were shaken from coach to coach, addresses and telephone numbers demanded and exchanged. "Boy meets girl," muttered hearty but rather apprehensive adults in charge, consoling themselves with "ships that pass in the night." The energy and high spirits of the young seemed inexhaustible. Their elders proved less resilient and as one stared into the coaches alongside at some of the blank and weary faces one had the impression of being in an aquarium. Our own party returned tired but happy to the school, a good deal later than anticipated, but having found it a very worthwhile effort.

This, we anticipate, is the penultimate of our Coronation celebration which began with the distribution of Coronation mugs (filled with boiled sweets and tied with red, white and blue ribbon) and will end with the showing of the film "A Queen is Crowned." The school has had the opportunity of going home for five days. Thirty-three boys had frustrated any similar plans of the staff by electing to stay at school.

Through the kindness of various friends in the Textile Trade all these saw the procession from windows of great stores along the route. We were able to hire a television set and altogether we feel that we have "done" the Coronation really well. And now back to normal—for a well-earned rest, as the cynic may observe!

* * *

WE have recently held our inter-house Boxing Competition. This proved to be nearly as lively (though not quite) as the recent debate in the House on the exemption of professional boxing from the entertainment tax. We had nothing that could quite compare, perhaps, with the scrap between Mrs. Braddock and Dr. Edith Summerskill, or the passionate outcry of Mr. Shinwell that black eyes are the characteristic of a democratic country. I am ignorant of what other schools do about boxing. I have always insisted as a headmaster that every boy in the school (unless exempted on medical grounds) should learn the rudiments of the art. Whether they should be made to box after a certain age I am growing more doubtful. I am now inclined to think that after 13 years of age they should only go on with it if they want to. This means that nearly all of them will stop. That, at least, is my impression. The difficulty of organising any sort of house boxing competition in a smallish school is the reasonable matching of opponents. The usual practice of doing it by weight produces bouts between boys of two or three years' difference in age and nothing could be more calculated to make the sport unpopular in the eyes of the school as a whole. Besides the fact that age counts a great deal on the physical side, there is the question of prestige. The members of the bottom form are deliriously delighted when one of their number defeats a boy two or three forms higher up, but I have sympathy with the seniors who actively disapprove of "such goings-on." This does not often happen, though it can and did with us this year. More often the elder boy with the additional stamina of his years and the moral effect of his seniority quite outclasses his opponent in the second round. Either way is unsatisfactory. Dr. Summerskill and her supporters have one answer to it. I want another that will still preserve boxing as a school sport. If the eye of any expert enthusiast falls on this I hope he will be kind enough to give me the benefit of his advice.

I REMEMBER reading and, I believe, writing in this column, of the Medical Officer of Health who advocated the colouring of milk to make it more attractive to school children. Now, I see, we are moving on to the clothing of teachers. *The Times,* I think, started it by suggesting in a leading article that teachers should enliven their lessons by appearing in gay colours. Why just gay? Why not also appropriate? Do you not fancy yourself teaching Latin in a toga, and Russian in serge? Our pupils will presumably nearly all wear "slacks." The ladies should be particularly enthusiastic, as indeed they are, about colour schemes. One has written: "We decided that yellow was appropriate for mathematics ("Hear, hear!" says this mere male), scarlet for French, green for English and pink for cookery." (I should have suggested a delicate burnt sienna.) This same lady quoted a pupil who, writing on the subject "The kind of Scripture lesson I like," stated: "I like all the Scripture lessons when the teacher wears her blue suit or her grey suit. I can't bear them when she wears the striped one she has got on to-day." Are our boys similarly susceptible to such influences. I doubt it, but I think I shall wear my new red waistcoat to-morrow.

* * *

HOW great a part should the school doctor play in the life of the school? Readers of *School Management* who have the privilege of meeting Rugby's Dr. R. E. Smith in these pages may well echo the views of Dr. Alan Moncrieff who has recently stated that he would like to see the school doctor playing a much more definite part. He should, for instance, concern himself with the program for physical education and the related field of remedial gymnastics. Dr. Moncrieff further instanced hygiene, ventilation, meals, lighting, desks and the playground as matters in which school doctors could help more than they do. There is also the question of the teaching of biology in schools and the related problem of sex education. Much, obviously, must depend on the personality of the doctor and the time he can allow to problems of school management apart from the treatment of the sick. The modern movement on the part of all doctors and nurses towards prevention rather than cure is nowhere more valuable than in schools and anything that helps this should receive the wholehearted co-operation of those concerned with the administration of schools.

EATING OUT

Professor V. H. Mottram suggests some dietetically balanced foods for packed lunches on school expeditions

FOR long we have been awaiting a season when we could have meals out of doors. To a family, like mine, where we expect to have such meals any time between March and November, it seemed a long time coming. But as last summer was a wash-out in that respect we may expect some compensation this year. The recent heat spell is providing brief respite from wet and windy months.

I do not imagine that schools are likely to make a practice of having all meals out of doors. The domestic staff would jib, and the teaching staff would doubtless complain of glare (obviated by dark tablecloths), flies and, later, wasps, and congealed viands. Flies and wasps are almost inevitable, but afford amusement to the young. As regards congealed foods, why ask for hot foods? You get almost as many calories from cold meat as from hot—8 oz. of hot potatoes give you only about 2½ more calories than potatoes at body temperature. What is 2.5 compared with the 700 to 1,000 calories of a square meal? The staff, too, would say salads take so long to prepare. They do, I know. But most young boys—and I suspect most girls—are quite game to eat lettuce like a rabbit, without it being dolled up with tomatoes, beetroot and salad dressing.

The season of school expeditions is on us. The school goes in hordes to some point of historic interest or a fine viewpoint; takes in its stride some archæological centre, or place of geological or geographical importance; spends its time in search of botanical specimens or in bird-watching. And it has to be fed.

The orthodox packet lunch is made of sandwiches (meat or cheese), cake or biscuits and fruit. It is convenient and portable. True, sandwiches take a long time to prepare. Fruit needs a deal of packing and is very expensive. Packed lunches fall down as a rule on drink. 4 oz. of tomatoes may yield 3½ oz. water; but the drink the body clamours for on a warm day in the open air when taking exercise is anything up to 40 oz.! No wonder one suffers thirst on a school expedition. Water and water containers add so dreadfully to the weight carried, if taken in the quantities required. Mountaineers are only too aware of this and say, plaintively, if you can carry it, a tin of fruit juice is very welcome when scaling a peak in the Alps.

What has the dietitian to say on the subject of school meals on school expeditions? Firstly, the only things which matter are calories and the assuaging of thirst. Proteins, whether first or second-class, matter not at all. You won't climb Ben Nevis or Snowdon any better if you have vitamins and mineral elements in your food for the day. And I suspect that the last stage of the ascent of Everest was done on sugar, or chocolate (details at the time of writing are not to hand). But you cannot do even the mild exercise of walking if your muscles and nervous system are calling out for calories in the form of sugar. Nor can you pay much attention to anything of interest if you are tortured by thirst.

Second, then, is the need for providing calories and curing thirst.

Calories are easy. Foods containing fats and sugars are obviously the thing. And best of these foods is pastry. This is not only theoretical knowledge, for actual practical experience bears it out. For theory consult the Medical Research Council's Special Report, "The Chemical Analysis of Foods," by McCance and Widdowson; or look up the calorie values of biscuits and pastry. For practical experience I adduce the evidence of a blacksmith whose job was the repair of agricultural machinery. In the haymaking and harvest seasons he spent most of each day in the fields from dawn to sunset working like a Trojan most of the time. He told me, and his wife confirmed it, that he could only do this

(*continued on page* 308)

OF DOORS

Miss Elizabeth Midgley tells the Housekeeper how to deal with last minute demands for sandwich lunches

THE last weeks of the school year are always busy and exacting so the domestic life, at least, must flow with ease and serenity, no matter what emergencies it may have to meet. So we should plan our meals with "surprise" dishes to tempt tired appetites and to stimulate fatigued brains. Heavy, rich food must be avoided, though breakfast and the evening meal must be sustaining and unhurried.

When examinations are over, any day may be chosen for an excursion and here again food is important. The kitchen must be prepared to co-operate with a sudden decision to spend a day climbing or camping or maybe to amble along country lanes. Food for more than one meal may be needed—and for more than one party—and must be chosen and packed to suit the circumstances. It is not enough to gather together odds and ends of food and hope that a good meal on the return from the trip will compensate for the lack of sustenance on the journey. A well-served meal can be the welcome finale to the day's outing, but it should not be a substitute for food needed when the going is hard.

Sandwiches should be nourishing and varied, and if it is possible to pack plenty of lettuces (cos pack particularly well) they can be very refreshing when drinks are difficult to obtain. Wash and drain the lettuces well and wrap firmly in waxed paper. If cook can make flat "plate" meat pies or tarts or pasties they can be much-appreciated items of the meal.

Metal plates, if considered too heavy, can be exchanged for cardboard ones on to which the pies, etc., can be transferred and be protected by during travel. Sausage meat and sliced hard-boiled egg, canned meat with sliced tomatoes, onion pasties, flaked smoked fish, etc., are good savoury fillings for these pies. Jam and fruit tarts made on this same flat type of dish can accompany savoury sandwiches, if these are decided upon, and though fruit in bulk is heavy to carry, each member of the party might carry his or her own portion. Slab cake and scones are simple enough to make and pack for tea, and with tea unrationed it is quite easy to persuade some farmhouse or cottage to make a hot drink before the last lap on the homeward journey.

When transport is available for a trip it is easier to provide variety for the meals. The food can be taken in bulk—bread uncut, meat, ham or brawns, moulds for savouries (with materials for salads), and tarts, jellies, trifles, fruit as the occasion decides and demands. Fruit drinks (and water) can be considered, and crockery and cutlery. Jugs for coffee or tea are easier to use than special pots. Linen for the "tables," tea towels, dishcloths or mops may be needed. Each basket of goods or food should have pasted on the inside of the lid details of contents, and a duplicate list of crockery, etc., is useful for the pantry-maid to check the returns by.

* * *

"Coronation" meals have given us an opportunity to add our quota of joyousness to meals and parties. So little work is needed to transform a dull dish into a gay one. New combinations of vegetables or ingredients of fruit and vegetables, fish and meat, can be adventured with. Gelatine can transform a simple dish into a mosaic of gay colour and charm. Gelatine varies considerably in strength, but testing small quantities can determine proportionate amounts to use (both in leaf and powder).

Four teaspoons of powdered gelatine dissolved in half a cup of boiling water will set the following mould:—

1 lb. minced or diced cooked veal,
1 lb. cooked diced ham,
1 cup celery, 1 small chopped onion,
2 teaspoonfuls chopped parsley.

Stir dissolved gelatine into meat, etc. Add 1 cup evaporated milk and taste for seasoning. Add salt if necessary. Pour into mould

(*continued on page* 308)

EATING OUT

(continued from page 306)

extravagant amount of work when his lunch pail contained plenty of pastry. You cannot expend energy without burning up energy-producing material in the body, and the best and most concentrated body fuel for energy is fat. No one can consume pure fat to an unlimited extent, nor, if you could, would it hand out all its potential energy. You must have starch or sugar to make it effective — therefore pastry, or biscuits containing fat—e.g., gingerbread biscuits, shortbread, and cream crackers.

For the sandwiches—if you must be conventional and serve sandwiches—cream crackers buttered with meat or cheese. For the "afters," jam-tarts, shortbread or gingerbread biscuits.

Of course, sugar itself is a fairly concentrated form of energy-producing material. 1 lb. produces 1,800 calories, though, of course, butter and margarine beat it hollow with 3,500 calories per lb. My mountaineering friends use sugar to aid them on their climbs. One I know used to recommend a mixture of brown sugar (i.e., Barbados or "pieces" sugar), raisins, with perhaps nuts added—messy to eat, but nice! And why not sweets, particularly toffee and chocolate? Why not, indeed? Or even plain sugar? I am unlikely to forget the help that tea stiff with sugar, sugared bread and butter were to me when I landed up at a desolate farmhouse—the most isolated farm in England—at 10 o'clock at night, almost dead from fatigue and still some five miles across the moors from my destination. Yes, sweets by all means.

You will say: "But aren't all these foods thirst-provoking?" They are! The assuaging of thirst is indeed a problem. I think that if I were organising a school expedition I should arrange a series of rendezvous at definite times on the route and would guarantee to be there with containers full of cold water or, possibly, hot tea.

We don't yet know the underlying causes of thirst. Cannon, the American physiologist, showed that loss of water from the blood (either through sweating, exhalation or excretion) stops the sensitive glands from producing saliva. Consequently the mouth or throat get dry and we say we are thirsty. Ranjitsinhji—the Sussex and Test Match cricketer of my boyhood—advised the cricketer, when thirsty, to take water into the mouth, swill it round and then spit it out. But the theory of Cannon won't cover all observations on thirst as a recent article in *The Lancet* points out: "We do not know all that there is to be known about thirst."

This we can say: (i) You must eat to obtain energy when on a huge trek and if you are thirsty you can't eat satisfactorily. (ii) You should never drink on an empty stomach because your last state is worse than the first—you become still thirstier. (iii) Water is the best thirst-quencher, and in very hot weather it should be slightly salted—a flat teaspoonful to the pint. (iv) Tea and alcoholic drinks are by no means so good as water as thirst-quenchers, for they cause loss of water to the body via the kidneys.

Now, how are you to get very thirsty people to eat something before a drink? What works with many is to provide a highly tasty snack to begin the meal. (I, myself, put a little curry paste on the cheese in my sandwiches. Pickles or a piquant sauce will do.) That provokes the salivary glands to work and the eater can then swallow.

Some people produce saliva easily and these can stand thirst much better than the rest of us. Others always produce too little and these are the folk who want plenty of drink at meals. In any case, loss of fluid from the blood, and therefore from the tissues of the body, makes us an inefficient machine, and so the final point one has to make is: it is more important to attend to the drinks on an expedition than to the eats, though the latter are quite important, too. And this is exactly the opposite of what most people do!

(continued from page 307)

and when set turn out and decorate with garnish of tomatoes, radishes, etc. Serve with green salad.

The poor, abused cabbage is delicious *au gratin*. Cut boiled cabbage into small pieces (boil in minimum of water). Put into a batter-baking dish with salt, pepper and finely chopped onion and diced celery. Pour over thick white sauce to which has been added grated cheese. Top with crumbs and

dabs of margarine. Bake until brown and really hot throughout.

Before a meat course serve a salad of shredded raw cabbage into every pound of which has been stirred ¼ lb. of margarine. Serve in lettuce leaves with chopped nuts sprinkled over cabbage.

Coarsely chopped watercress and chopped boiled egg with a sprinkling of chopped chives is good eaten with a thick salad dressing. Coarsely chopped cabbage dressed with sour cream is good. Sprinkle with grated cheese.

Flaked fish lends itself well to a moulded savoury. Poach fish (white) lightly and flake when cold. Melt lemon jelly and lightly coat dish. Arrange garnish of suitable vegetables—peas, sliced cucumber, tomato, egg, etc.—on base and sides of dish. Allow to set. Fill dish with flaked fish, garnish with shrimps and prawns, and carefully fill up dish with proportionate amount of cooled gelatine. Put in cool place to set. Turn out into dish and serve with new potatoes rolled in parsley.

Chopped meat and parsley, diced cucumber, watercress in sprays or plucked leaves, etc., can all be used to make colourful individual jellies or added to large moulds of varied content. Red cabbage, diced beets, radish roses, fish stars, lemon crescents, orange quarters, grapes (green and black), stoned cherries, baby carrots, shredded carrot — anything can be introduced into moulds, and many meats and fish mix very harmoniously with fruits.

A flavouring of good vinegar or sharp fruit juice can give distinction to a mould. Evaporated milk beaten to a thick cream can be added to an almost set savoury mould. Scatter chopped nuts, chopped chives or finely grated onion or onion juice over the cream. A suspicion of lemon or orange juice is agreeable too. When the mould is turned out in a not too deep dish, garnish with anything you have forgotten to add to the mould and plenty of "green." Sliced pineapple is good with ham or fish mould.

Rice (boiled with grated onion) makes a good base to a steamed chicken mould. Garnish with chunks of hard-boiled eggs and rolls of boiled ham or heaps of diced baked ham. Salmon mousse with a garnish of thick cucumber slices garnished with shrimps is good, or surrounded with lemons sliced and small mounds of peas and chopped celery. Thin ribbands of young carrots, or carrot matchsticks floating in a meat mould give colour, and a lily-pond of radish rosettes can top a wide, shallow meat mould if added when the under-mould is set. Nasturtium leaves make a pretty garnish, with or without their flowers.

NEW EQUIPMENT

POWER points at floor level in classrooms are all too easily knocked and broken, but the new *Duraplug* rubber plugs and sockets are unbreakable and ensure the finest insulation. There are various types and sizes from 2 to 15 amp, costing from 2s. 3d. to 3s. 9d. each for the plugs and 3s. 6d. to 4s. each for the sockets; a connecting socket to fit any standard 3-in. plug costs 5s. 9d. There is also a weatherproof 5-amp cable-coupler at 13s. 9d.

* * *

With fluorescent lighting being installed in more and more schools, *Ediswan* have brought out a timely new batten fitting called *Unilux*, a single-lamp, 80 watt, 5 ft. fitting which is low priced and really easy to fix in position. So many fluorescent lighting fittings need the services of a professional electrician for their installation, but the *Unilux* fitting incorporates the patent Pendicone washers which allow the ceiling screws to be inserted before the fitting is affixed to the ceiling, thereby eliminating the difficulty of inserting screws while holding the fitting in one hand. The unit is in white plastic and enamel, and the price, complete, is £5 10s.

* * *

Housekeepers will welcome a new type of duster which actually collects dust instead of just moving it from one place to another. This is the *Adhesive Duster*, a cloth impregnated with a substance which makes it sufficiently tacky for particles of dust to adhere to it, although it is not sticky to the touch. Folded into a pad which can be refolded to give 32 clean surfaces, it has quite a long, and very useful, life. Obtainable from Adhesive Dusters, St. John's Street, Kates Hill, Dudley, Worcs, the prices are: 1 doz., 22s. 6d.; 4 doz. carton, 84s.; 1 gross, 240s.; and for orders of up to one dozen, 2s. each. Adhesive cloth can also be supplied in rolls at 3s. a yard, minimum 50 yards.

making

ICE CREAM

by Doreen Davies

EVERY school child loves ice-cream and there are few adults who do not share their enthusiasm, yet it is often disappointing for them that, apart from those institutions which make arrangements for a regular supply to be bought, ice-cream is not featured on the menu as frequently as might be expected. There are few popular summer sweets which can favourably compare nutritionally with ice-cream, and few sweets are more versatile.

Vanilla ice-cream may sound dull, but with chocolate, nuts, butterscotch, peppermint and fruit it can be given a thousand different dresses.

Getting the correct texture

Home making of ice-cream is not difficult, but making a perfectly smooth yet soft texture is a problem. When it is produced commercially ice-cream is constantly mixed during the freezing process. This gives it lightness and prevents the formation of large ice crystals. But the proportions of sugar, fat and milk solids in the mixture are also important factors to the right texture. Recipes for home-made ice-creams which are good are usually very rich, the good texture being achieved by many egg yolks, plenty of cream or the use of evaporated milk. Where less extravagant mixes are made up, more time must be spent whisking the mixture and when ordinary refrigerator ice trays are used this is not very practical. An economical alternative is the purchase of an ice-cream powder. This also has the advantage of relieving the caterer of the problem of maintaining the minimum ice-cream standards. No longer can any frozen mixture be called ice-cream, for a legal standard of not less than 5 per cent fat, 7½ per cent milk solids and 10 per cent sugar has been set, and pasteurisation of all ice-cream to be sold is essential. The private caterer may not feel compelled to comply with such requirements, but surely, being a minimum, it is a standard that all ice-cream recipes should achieve. Complete ice-cream powders are carefully balanced and already heat-treated, so their use is very simple.

As well as the fat, sugar and milk, ice-cream usually contains an ingredient to combine the others; custard powder or gelatine are frequently used, but the amounts should never be enough to set the mixture before freezing. The "cold butter" consistency of ice-cream must be formed by the freezing, but remember, an over-frozen mixture can also be too hard to be attractive. Three hours is the average time to allow for freezing, but of course this will depend on the amount of ice-cream being made and the conditions for whipping and freezing. The principle of the old-fashioned method of surrounding the ice-cream container with a freezing mixture of ice and coarse salt, whilst continuously churning, remains unchanged. The method may be summarised as follows: whip the mixture until cold, freeze as quickly as possible. Whisk several times during freezing. Turn the temperature of the refrigerator to normal as soon as the mixture is firm.

Choosing the temperature

You may sometimes be tempted to reduce the temperature of the refrigerator to store ice-cream, but it should be noted that refrigerators used for general purposes are quite unsuitable for indefinite storage of any foods, including ice-cream purchased in frozen blocks. Unless stored in a deep-freeze cabinet, the keeping quality of ice-cream should be regarded as no different from any other similar food, and it is advisable to make only enough for one or two occasions at one time—1 gallon of ice-cream gives about 60 servings.

Here are a few recipes for home-made ice-cream, and some recipes, including toffee

praline, to accompany ice-cream. The latter are specially useful for giving a home-made touch to commercially-made ice-cream, and, by the way, the idea of serving hot sauces with cold ice-cream is most palatable.

CHOCOLATE ICE-CREAM

3 quarts water.
1¾ lb. sugar.
1 vanilla pod or vanilla essence.
4 oz. cocoa powder.
4 oz. covering chocolate.
1 oz. gelatine.
2 pints synthetic cream (whipped).
2 oz. custard powder.

Blend the custard powder with a little cold water and soak the gelatine in 4 tablespoons water. Bring the water, sugar, vanilla, cocoa and chocolate to the boil in a saucepan, add custard powder. Add the gelatine and, when cold, add the synthetic cream. Mix well and freeze in usual manner.

VANILLA ICE-CREAM

2 pints milk.
6 yolks of eggs.
¼ vanilla pod.
½ lb. sugar.

Mix milk, sugar and vanilla in a saucepan and allow to come to the boil over the fire. Beat the yolks of eggs well with a whisk in a basin, add boiling milk whilst whisking, and cover with plate for a minute or two. Then mix well with whisk once more, pass through a strainer, and it is ready for freezing. During the freezing, whisk several times. This mixture may also be frozen in an ice bucket stood in a mixture of ice and salt. N.B.—Whipped cream may be folded into the mixture, or some of the milk may be replaced by evaporated milk to give extra richness.

PRALINE

1 lb. brown whole almonds.
1 lb. hazelnuts.
4 lb. granulated sugar.

Put all the ingredients into a pan (copper preferably) and keep stirring on a good fire until the sugar is melted and smooth. Turn out on a slightly oiled tin or baking sheet to cool, and you will find, if you use the above ingredients and method, that the almonds and nuts are roasted at the same time to a brown colour.

If preferred, melt the sugar, roast the almonds and nuts separately in the oven, and finally mix them with the sugar just before the sugar is ready to turn out.

When cold, break up with a rolling-pin and crush fine on a marble table or pass through a machine.

SAUCE CARAMEL

Take about 2 lb. sugar, dissolve in water, and boil until dark brown; then add carefully ½ pint of hot water, just bring to the boil, and the sauce is ready to serve. If it should appear to be too thick, add a little more water; or if too thin, allow to boil until required thickness is obtained, or add a little slaked custard powder.

CHOCOLATE SAUCE

1 lb. cocoa.
3 lb. sugar.
1 quart water.

Bring the ingredients to the boil in a saucepan and then it is ready for use.

FRESH RASPBERRY SAUCE

1 lb. raspberry pulp.
1¼ lb. castor sugar.
Little red colouring.

Pass the raspberry pulp through a fine sieve, add the sugar and, to deepen the colour, add a little colouring; mix well, and as soon as the sugar is dissolved it is ready for use.

This quantity is quickly prepared for small parties.

continuing

Newsheet

from page 301

cover. Before that, boys completed an observatory, in which very little outside help seems to have been called upon, for the building was planned by a keen amateur astronomer, built by the appropriate School club, boasts a revolving roof and efficient telescope, and even the rather complex convex (or is it concave?) mirror in the telescope was ground by a boy in the School. The first pioneer effort was a boat-house (for the Boating Club), 100 ft. by 18 ft.

In all this work Bryanston School, being part of a large estate, has been able to tap the skilled knowledge of the Works Department. In addition it is part of the policy of the School to give boys at least one interest apart from academic work, and staff are engaged accordingly — i.e., for the breadth of their interests in addition to the usual qualifications. Parents presumably send their children here to benefit from this policy and should, where their financial situation permits, be anxious to encourage these club activities—Bryanston has this on its side where an appeal for funds is concerned. If one takes this into consideration the sum required seems not so high.

(*continued on next page*)

Two other Bryanston activities we noted with interest were the new study block, of a most attractive contemporary design, and consisting of two storeys of private study rooms (private study becomes an increasingly important part of a boy's work as he goes through the School, where the Dalton system is used, so private study accommodation is particularly important here). These rooms are for three boys, though only two are allowed to work in a room at the same time. The front of the block is entirely glass window, giving plenty of air and sunlight, and the block is the depth only of the rooms and a corridor behind them.

The School also recently installed a television set with projecting screen—wisely, in time for the Coronation. The set resides in the assembly hall, is small and compact in design, and the screen (4 ft. 3 in. by 3 ft.) simple to erect as a film screen. The set is, as one would expect, used with great discretion. Study periods in the evening prevent looking-in more than once a week—and anyway most of the entertainment programmes are not regarded as of a sufficiently high standard to "look in" on. But discussions and programmes such as "In the News," a debate on mainly political issues by well-known politicians (for the benefit of those who don't boast an H aerial), are selected. At this time of the year it is found most valuable for cricket matches, offering an excellent opportunity to improve play by watching the experts.

Watching programmes is optional—these are selected where possible to coincide with study periods, so that lessons are not disturbed and study can be done later. One master is in charge of the selecting of programmes, and it is, of course, the outside broadcast, the rather rare good film, and historical events such as the Coronation for which the set is mostly used.

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continuing THE MINISTER REPORTS

ominous reference to "action to be taken to liquidate the actuarial deficiency disclosed" by the Government Actuary's Report on the Teachers' Superannuation Act. It is not mentioned that this is, in fact, a fictitious deficiency and that all national superannuation schemes could disclose similar "deficiencies." In her introduction the Minister admits that increases in Ministry of Education grants expenditure "were compensated to an appreciable amount . . . by increased superannuation contributions payable by teachers and their employers" as a result of higher salaries.

There is a brief chapter of three pages on Special Services. This brevity is possible because of the very full report issued yearly by the Chief Medical Officer of the Ministry of Education. In special schools, the number of which increased by 24, the pupils increased in number from 49,054 to 51,191 and the teachers from 3,490 to 3,739. Even so, no fewer than 20,500 children were awaiting places in these schools at the end of 1951. This terribly long waiting list, moreover, grows longer each year. Doubtless more is being done in ascertainment but, nevertheless, the problem is a tremendous one. It is for educationally sub-normal children that the shortage of places is most serious. The Report devotes quite a lot of space to the "steady recovery of the school dental service" which is described as "the most striking development during 1952." This is attributed to two causes. New salary scales gave unprecedented salary increases to school dentists. The imposition of a charge for dental treatment under the National Health Service "may also have helped to strengthen the school dental service by reducing the volume of the general dental service." It is surely odd to find, firstly, that a service is regarded as "strengthened" because the number of its patients is thus increased. In June, 1952, Local Authorities were urged to make use of the services of "dentists in general practice" who might be prepared to take up part-time school dental service on payment at sessional rates. Thus the Authorities' staff of full-time dentists would be economically augmented. Quite recently the British Dental Association itself suggested to the Ministry of Health that until it had enough full-time dentists, the School Dental Service should be supplemented by general practitioners working in Local Authority clinics. The Association also suggested that children whom the Local Authority could not treat in its own clinics should be treated under the National Health Service. Both suggestions are eminently sensible and, certainly so far as the first is concerned, entirely in line with the suggestions of the Ministers of Health and Education of a year ago. The Minister of Health has, however, replied that the use by school children of the National Health Service would have an adverse effect on recruitment of dentists for the School Health Service and thus hinder the development of a service for children!

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TEXT BOOK REVIEWS

Twentieth Century French Translation Passages

Selected by John Lough and Muriel Lough.
(Longmans, Green and Co. 6s. 6d.)

THIS volume contains 100 prose and 35 verse passages published since the turn of the century. A glance through the list of authors represented shows that few well-known names are missing, though the amount of competent work which has come from the presses during this period is so great that it is no easy matter for anthologists to include everyone they would like to include. Equally, considerations of space forbid the inclusion of more than two passages from authors so important and so prolific as Proust, Gide and Jules Romains. The compilers have striven for diversity of style and idea so that those who work through the volume will not find themselves completely unprepared whatever the difficulties of the examination day, for it must be stated that the compilers had very much in mind the needs of all those, whether sixth-formers or university students, who are preparing for higher examinations in French. The passages range "from the comparatively straightforward to what verges on the untranslatable," but there is a good number of the type required for the various levels of sixth-form work.

There is an excellent introduction which will repay careful study by examination candidates. Traditionally, translation from French into English is popularly regarded as about the easiest of linguistic tasks, but it is easy only if judged by complacent standards. From a considerable experience the compilers set out a list of useful hints which will help young students to develop competent, workmanlike standards.

An English and General Course for Sixth Forms

By P. R. Heather.
(Longmans, Green and Co. 5s. 6d.)

THERE is always some difficulty about the weekly sixth form hour, when all branches of the sixth form join together to hold a general discussion or to follow systematically some branch of useful knowledge which one section of the sixth might be inclined to neglect. There is a temptation to leave the whole thing to the inspiration of the moment; a well thought-out book of course serves as a useful safeguard against such haphazard technique. The present volume shows that the compiler is well acquainted with the diversities and complexities of this class of sixth-form work. He has sought to provide material for useful study, to provoke thought and discussion, and to give a class a chance to exercise its critical powers. The book has six sections —themes which will serve to start a discussion, general knowledge tests, passages for comprehension with essay subjects, passages for appreciation, passages for précis, passages for paraphrase—in short, a mixed bag which should interest most sixth-formers. The subjects for discussion range from metempsychosis to "accessory before the fact." The subjects for essay show corresponding variety, and the passages for comprehension range as widely as from Trollope to Laski—in brief, we find here the variety which life presents to the intellectually curious.

A Simple Guide to Modern Valency Theory

By G. I. Brown, B.A., B.Sc.
(Longmans, Green and Co.)

THIS small volume is an attempt to set down in simple fashion the salient facts concerning the alliance of atoms to form compounds, and the part that their electrons play in the process. To help students, and, as the author says in his preface, "older chemists who are interested in modern developments but who may not have the time or inclination to study the more advanced works," this work has been written. It is altogether an admirable book and an excellent example of its class. He has been successful in translating what is essentially a mathematical conception into simple language, and the result is very readable.

He has, as it were, approached the problem from first principles, starting with a very brief outline of the fundamental atomic structure and passing rapidly on to the part that electrons play in the formation of compounds. This leads him naturally to the modern conception of valency and a discussion of the various recognisable types of atomic union. Nor is his treatment purely theoretical. He is at pains to outline some of the practical methods by which necessary measurements are obtained and the manner in which deductions are made from them.

The work abounds in simple and very clear diagrams, and those showing certain types of crystal structure particularly are first class. The serious student will be aided by his constant use of cross-references, for hardly a vital step is made in an argument that does not have its corresponding reference to some statement made on another page. His frequent use of footnotes, however, is not a good point. It is common enough in books of this kind, but the practice does lead to loss of concentration. It is arguable that such footnotes could, or should, be woven into the text in order to preserve continuity.

"A Simple Guide to Modern Valency Theory" can therefore be thoroughly recommended to serious students in sixth forms.

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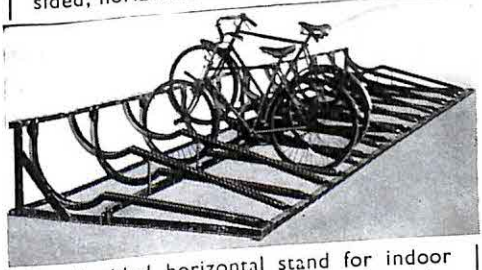

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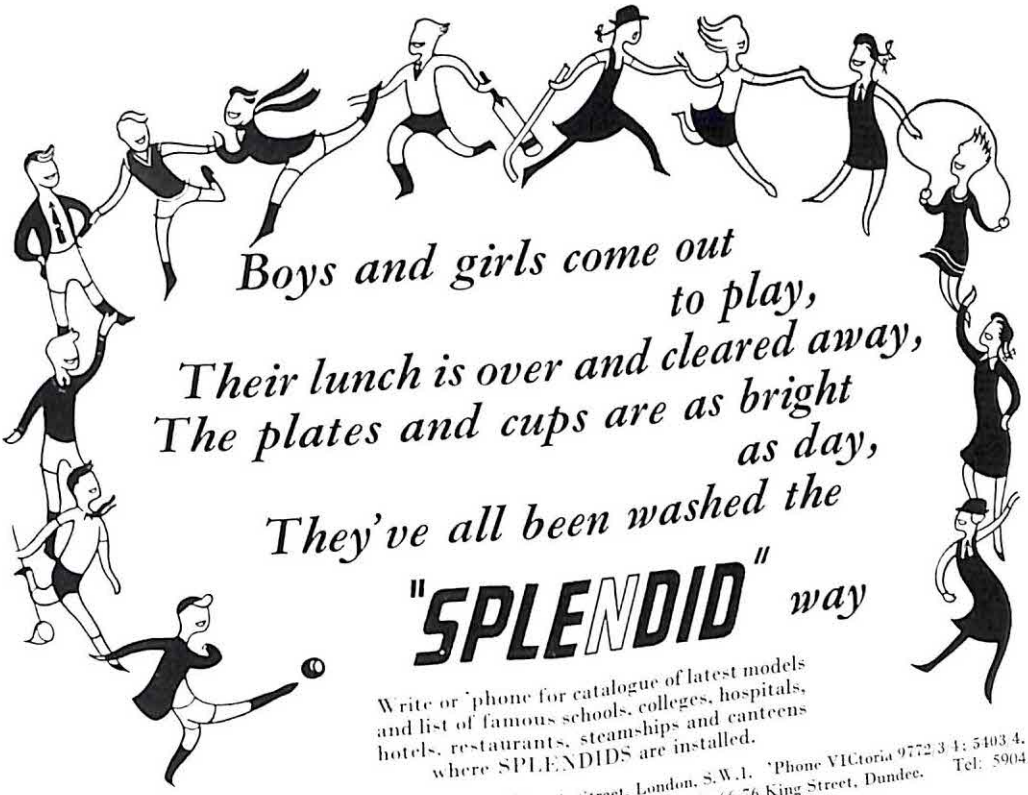

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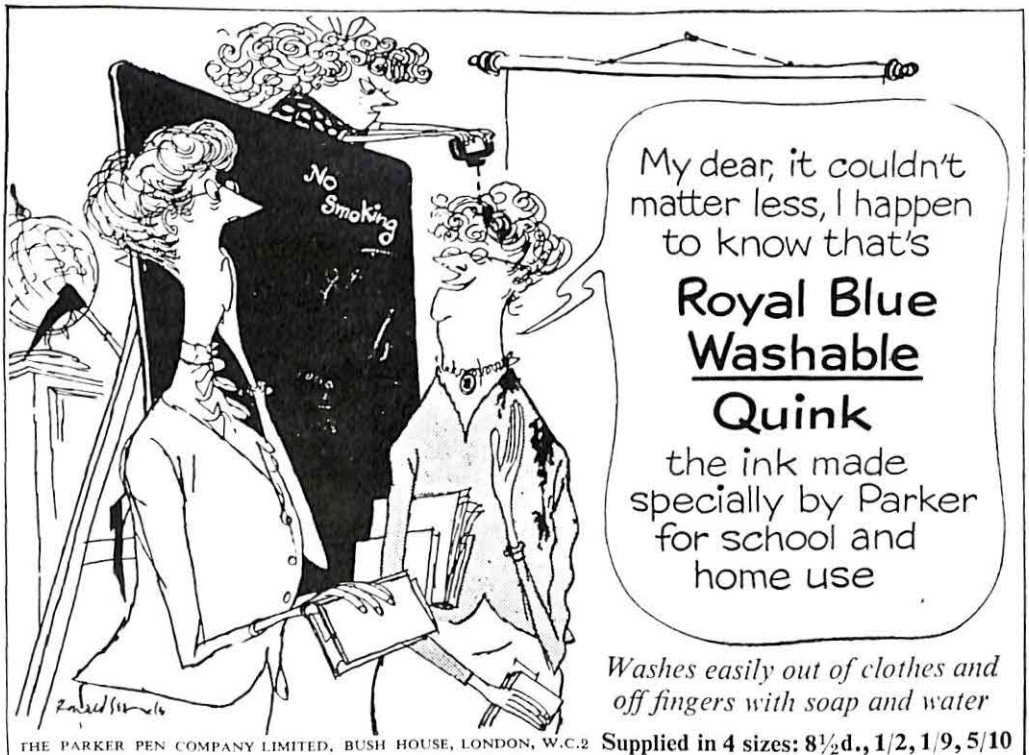

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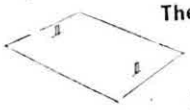

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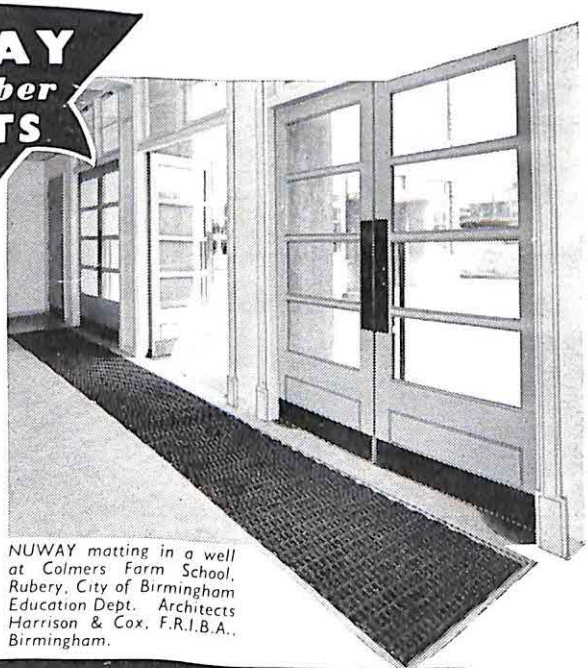

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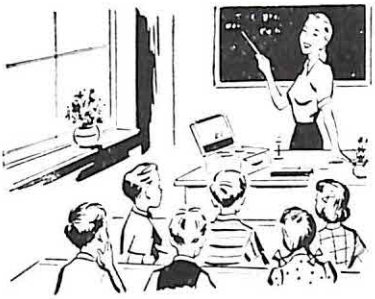

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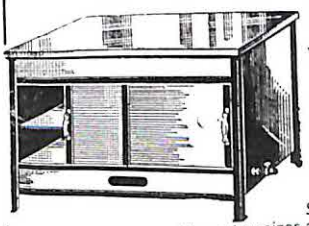

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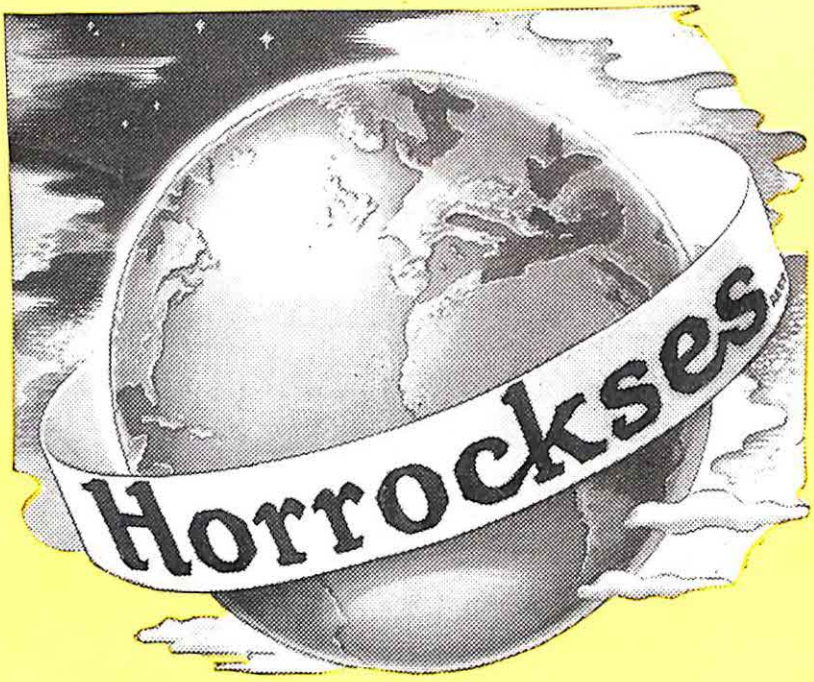

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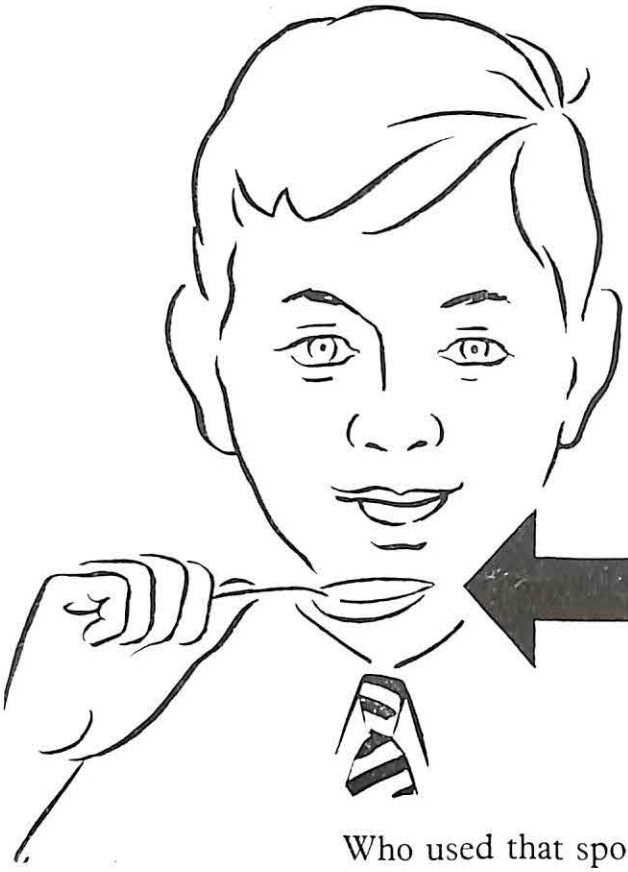

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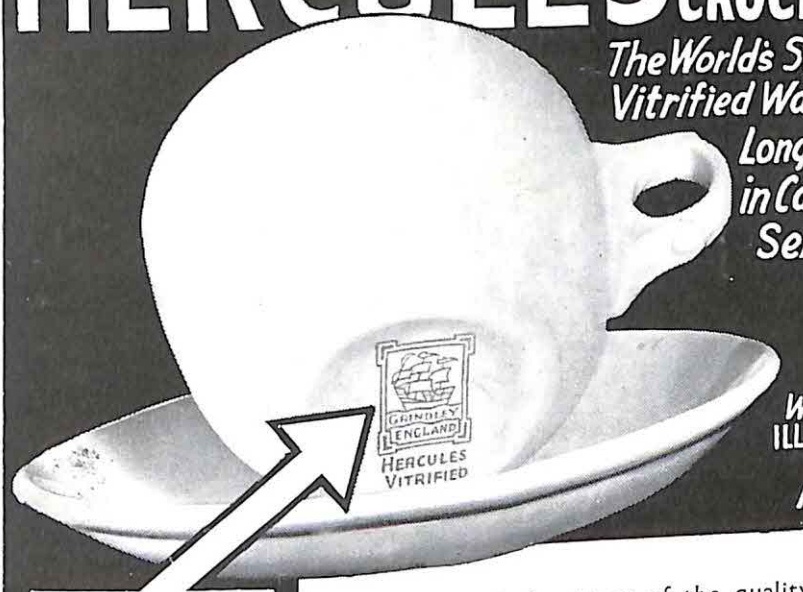

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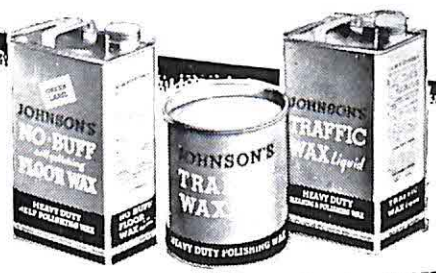

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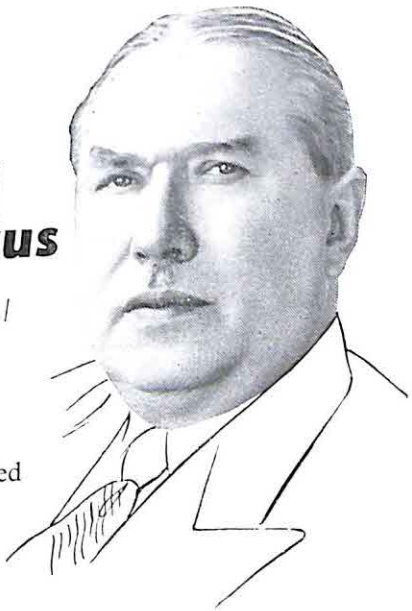

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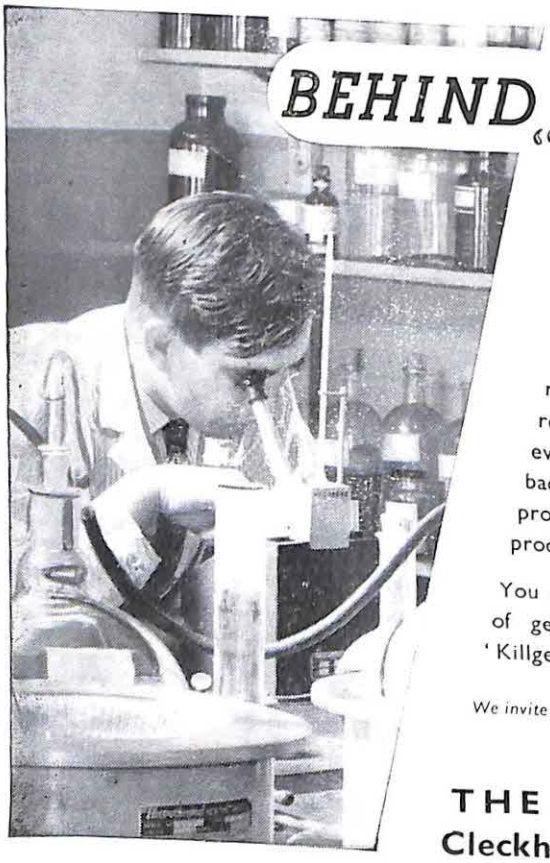

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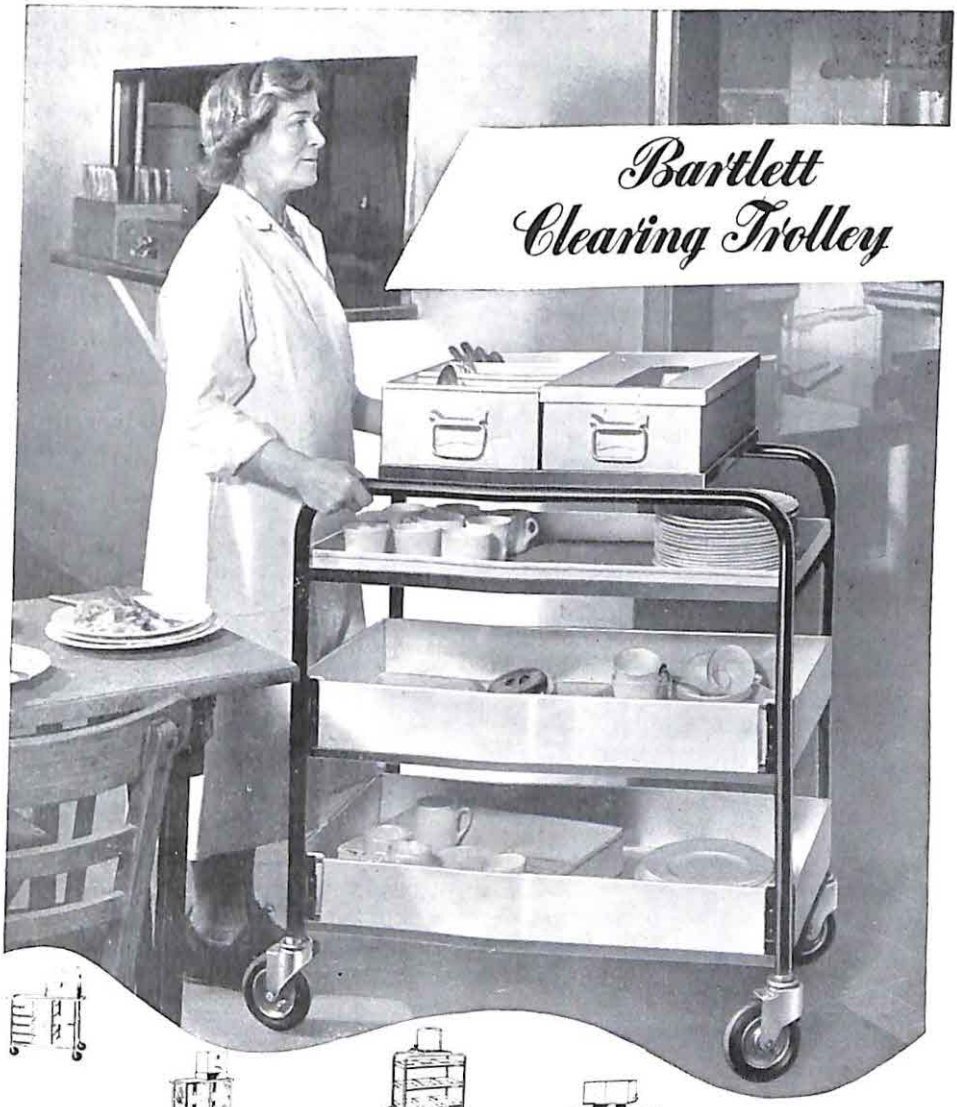

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SCHOOL & COLLEGE MANAGEMENT

Contents

News-sheet — a new feature bringing you news of activities in other schools 331

Labour's "Radical Reform"—C. L. Berry comments on some of the suggestions for the future of independent schools in the Labour Party's "Challenge to Britain" 332

Where to find Emergency Teaching Staff—how the appointments bureaux can take the sting out of last-minute staff problems 334

End-of-term Drama—Headmaster F. A. V. Madden takes a humorous look at the school stage, set for pre-holiday chaos 336

Teaching Children about Health—Dr. R. E. Smith advises the school doctor on planning health instruction 338

America's Health Museum—how American children learn about health in a lively way 340

A Problem of Water Supply was all that stood between this school and its swimming pool until the children, in co-operation with the Bursar, solved the problem 342

Dried Vegetables are more than an emergency food, says Doreen Davies, who tells the school cook how different varieties of dehydrated food should be prepared for best results 345

Reheated Food—V. H. Mottram gives a warning on one of the causes of food poisoning 347

Housekeeper's Notebook helps you to plan holiday chores 349

In Pursuit of the Potted Plant—more ideas about what to grow in the classroom from W. E. Shewell-Cooper, M.B.E. 350

Book Reviews 353

Vol. 13 *No. 8* *August, 1953*

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News-sheet

—a symposium of management ideas and projects planned to keep headmasters and bursars up-to-date with activities in other schools.

LAST month we reported upon the methods employed by certain schools to raise considerable sums in order that major improvements might be made to their premises. Bryanston, you may have noted, were shrewd enough to realise that it is a very human wish to give and yet not lose sight of one's gift in the general effort. Friends of the school, who wished to forward the projected new music school, could give selected items such as the floor tiles for the corridors, 440 yards at £1, and, at some future date, walk those corridors with the silent satisfaction of knowing that what they stood upon was their contribution to the building.

In the matter of smaller gifts to a school, the wish for them to be personal is even greater. Monkton Combe School, near Bath, have realised this and, very sensibly, publish in their magazine *The Monktonian* a note of guidance to boys who are leaving the school, and to their parents, as well as Old Boys, upon the acceptable forms gifts to the school could take. "There are many additions to the school's amenities, big and small, of a kind which the Governors cannot be expected to provide out of the fees paid by parents, which would be most gratefully welcomed." And a list follows:—

For the chapel: bibles of a uniform style chosen by the school, to remain permanently in boys' places.

For public rooms: curtains and clocks; armchairs for house common-rooms; display cases for the school museum.

For the library: books, after consultation with the librarian.

For the garden and playing fields: flowering trees and shrubs; garden seats.

The form gifts to a school may take is fairly obvious—to anyone running a school. We tend to overlook the fact that generosity can be stifled by uncertainty. Parents are not usually quick to realise what is needed. It is helpful to give them a frank and sensible lead, such as this.

Not every boy leaving school, nor all Old Boys, are in a position to make gifts of a material kind. There might well be a further list — of services that could be rendered to a school.

* * *

A NOTE, a cry from the heart, we should like to quote from a prep. school magazine recently received:—

"At the end of every term there has accumulated in the changing room a quantity and variety of unclaimed articles — socks, stockings, shirts, handkerchiefs, serviettes, gloves, towels, slippers, boots, Wellingtons, etc. A shoe, maybe, is without a companion; a glove crying for its mate. The clothes are beginning to disintegrate, the footwear to fall apart. Even a jumble sale would look askance at much of the flotsam.

"During the term the Headmaster has been unremitting in his efforts to trace back to its rightful owner some offending garment; the owner unremitting in his refusal to be burdened with such an object. A sorry state of things! And chiefly because these outcasts of society have not been christened.

"Will all parents for the sake of their own purses, their children's welfare and Mr. Wilson's temper, *please* have everything which can be marked *marked?* Thank you very much."

The editor welcomes contributions from schools for this feature—please write to us about your activities, and put us on the mailing list for the school magazine.

LABOUR'S

ALTHOUGH much has happened since then to attract public attention elsewhere, the publication of the Labour Party's "Challenge to Britain" in June was an event of some importance to all who are concerned about the future of education in England. These last words, it must be added, are not the result of mere carelessness. The statement presented by the National Executive Committee of the Labour Party to the Party's Annual Conference, and through it to the people of Britain, is so obviously concerned with England and the English Education Acts in its section on Education as one of the Social Services. That there is no "British" educational system or statute law is neither recognised nor realised. It is, in fact, neither safe nor correct to assume that what refers or is applicable to the English system and law of education is in all respects relevant also to the systems and laws of Scotland, the Isle of Man or Northern Ireland. The statement merits serious consideration and study, for it represents the considered opinion and declared intentions of the party which has governed England before and will govern England again.

A fair trial for the Butler Act?

"Labour will undertake a radical reform of our school system." So begins the statement on Education. The strength and significance of the word "radical" should be appreciated. The Butler Act of 1944 has slowly come into partial operation during the past seven years. There is no prospect yet that some of its provisions—the raising of the school-leaving age to 16, the adequate provision of nursery schools and classes, the establishment of so-called "county colleges" and compulsory attendance thereat, the provision relating to independent schools—will be carried out in the lifetime of those who devised them. Yet the little that it has been possible to do to implement that great reforming Act is apparently to be the subject of "radical reform." To many people it would seem wise and equitable that the Butler Act should be given a chance, that it should be put fully into operation and then in due course judged on its merits as a working measure before other and in many ways contrary reforms are promised or threatened.

"The quality of education must be improved by reducing the size of classes." At first sight this appears to be eminently sound and sensible—until it is realised how small many classes are and how reasonable and manageable in size most classes are. The menace of large classes is real enough and at the present time such classes are far too numerous. Even so it is misleading to suggest that all or even most classes in primary or secondary schools are overcrowded. It will surely be agreed that *where necessary* the size of classes should and must be reduced if the quality of education is not to be reduced at all. For this, admittedly more teachers and more classrooms will be needed. The statement does not, however, say whence the new and additional teachers will come. Is it not a fact that there just are not enough young people with the desired qualities and qualifications to meet the clamorous needs of all the professions? The statement gives a totally inaccurate picture when it speaks of our "overcrowded and understaffed free system of education." Alongside this system, as thus described, there are fee-paying preparatory and public schools "with small classes and high social prestige" which are said to make a mockery of the maintained school system. Small classes coupled with high social prestige are apparently very serious faults, obviously not educational, and therefore, presumably, political. It is, therefore, the ultimate aim of the Labour Party to wipe out all these schools, but not necessarily within the years of the program outlined.

Selection at eleven

The ten years' program will concentrate on reducing the size of classes, abolishing "segregation" in secondary schools and expanding technical education. New methods and new types of building will hasten the provision of extra classrooms. The extra teachers, it is hopefully assumed, will materialise by making teaching attractive to young people, bringing older qualified people into the profession and giving them adequate allowances during training.

The Labour Party's Executive Committee condemns wholeheartedly the selection of pupils for secondary education at the age

"RADICAL REFORM"

Are the plans for reforming the education system, recently announced in the Labour Party's "Challenge to Britain" necessary or practical? C. L. Berry poses some questions to the educational reformers

of eleven. The entrance examination taken at that age is, they say, "the dread of child and parent alike." This is certainly not true of all parents and all children, but that it is true of many cannot be denied. The parents impose their fears on their children.

> "It may be possible at this age to pick out the exceptionally bright or exceptionally backward child, but the vast majority are not in either of these categories."

This statement is true enough. It is, indeed, to many people the justification for educating the "vast majority" of children in good "modern" schools, while the exceptionally bright are sent to "grammar" or "technical" schools and the exceptionally backward to "special" schools. The statement does not suggest the discontinuance of special education for educationally subnormal children, but does clearly regard special education for the educationaly supernormal as quite wrong. To discriminate between the bright, the average and the backward child is condemned as "both unfair and educationally unsound"—unless this phrase is meant only to apply to the fact that the number of grammar school places "varies widely in different parts of the country." Yet a proper reading of the statement rules out this more intelligible alternative. The Party would therefore "do away with" all the selection at eleven-plus. They would "abolish the eleven-plus examination" and give to all children the same education throughout the whole of their compulsory school life. The statutory school-leaving age would apparently continue to be 15 years. They would thus do away with the mistakes and consequent hardships which may arise from any imperfect system of selection.

A surprising and novel proposal is that there should be "high schools" for pupils who "remain at school," presumably voluntarily, after the age of 15. These schools would provide a three-year course leading to university entrance. In all cases of need, parents would be paid a "standard" maintenance allowance by the local education authority, wholly reimbursable by the Exchequer. It is admitted that a leaving age of 15 and the establishment of high schools for pupils aged 15 to 18 would require further consideration to be given to the age at which candidates may take the General Certificate examination. It may be assumed that the age would not be lowered to 15 but rather raised to 17 or 18. If this assumption be correct the "vast majority" of children would have far less chance than they have to-day of obtaining any such qualification. Segregation would be replaced by a new type of selection — for presumably there would be some kind of selection at 15 for admission to the new high schools. Would not this soon come to be "the dread of child and parent alike"? It is evident that these changes could not be made without the repeal or very drastic amendment of the Education Act, 1944. Children would no longer be educated each according to his *age, ability* and *aptitude,* and parents would have no choice whatever in the type of education at any stage of compulsory school life.

Privilege in education must be ended. That special ability and special aptitudes deserve and even require special privileges would not be admitted. The abolition of all independence in schools would not be achieved within the ten years. Independent

(Continued on page 335)

Where to find

EMERGENCY TEACHING STAFF

THAT title, appearing in what should be, and what we hope will be, the carefree month of August, is perhaps a little unfair. It may catch your eye just as the suitcases stand ready in the hall and you are about to set off on holiday—and send you off with your fingers crossed. It may greet you on your return, before you have opened the large pile of letters that have accumulated in your absence, and make you unwilling (even more reluctant than you are likely to be) to open any of them. Has anyone fallen off an Alp during the holidays and he is writing to say how much he regrets to let you down but, most unfortunately, it looks like being a long business and he fears that for the coming term . . . ? Junior mistresses have been known to marry quickly and, from their point of view, romantically. "The flat we have been waiting for has at last materialised. I trust you will understand if, this coming term, I don't return, after all. . . ."

Anything *can* happen, and sometimes, we regret to remind you, it does. A few facts and considerations, therefore, may be of help. One consolation—if it is any consolation—is that it does happen to other people too. In fact, the well-known agencies and, to a lesser extent, the Universities' Appointments Bureaux, always expect, and have, a "little season" early in September.

The agencies are ready to act quickly on your behalf and, when time is important, prefer telephone to correspondence and are quite ready to waive some of the usual formalities and procedures. There are always a few — not many — "freelance" teachers on their books who are prepared to take temporary appointments. There are not, perhaps, as many as there should be because the insecurity of such work is rarely rewarded by a salary slightly greater than the normal, as with temporary work in other fields. Temporary teachers expect, for one term's teaching, a third of the annual salary to which they would be entitled. Unless one is lucky, the temporary man or woman is likely to be "residue," not yet successful in finding a permanent post. As we know, the creaming of the labour market begins in June or even earlier; nevertheless, in certain subjects there are still competent people available at short notice and as late in the appointment season as this.

The teachers likely to be in very short supply are those offering the subjects, teachers of which you probably already know are hard to come by—science, maths. and classics, particularly teachers of Greek.

There need be no despair about filling a music or art appointment at any time, and with a man or woman of ability. There always seems to be a host of people prepared to teach art, particularly upon a part-time basis.

Having reported your vacancy, you probably expect applications from the young who have very recently graduated. Such applications you may have. What you may not be prepared for—and may be a little prejudiced against—are applications from older candidates.

It is a sign of the times that the agencies' books are fuller than some of them like with the names of men and women who have already done their allotted span of teaching and have earned their retirement at sixty or sixty-five. Financial reasons compel an increasing number of these "old hands" to place their names on the books of an agency in the hope that they may be able to earn for some years more. It would be wrong, we feel, to assume that financial

reasons alone compel this increasing number of experienced men and women to forgo their retirement; these days, the conventional retiring ages find both men and women feeling that they are capable of a lot more good work yet. Many genuinely do not wish to rust.

Schools in private hands where teachers are not paid to the Scale can benefit considerably by taking on, either in an emergency or permanently, one of these veterans who, having a pension, is keener to be working and supplementing his income than to be securing a salary proportionate to his experience and talents.

There does exist, then, a generous pool of experienced teachers upon which the headmistress and headmaster in difficulty can draw at any time.

In early September it should still be possible to fill history, English, geography and modern language vacancies. Naturally, where a late appointment has to be made it will have to be decided, after considerable thought, whether the appointment so late in the season should be a permanent one, on the usual terms, or whether it should be filled temporarily, perhaps until next June. For obvious reasons, the best men and women tend to become available only at that time. We know headmasters who have no objection whatsoever to one or two members of their staff being temporary and coming and going termly, believing that a certain amount of "turnover" in the common-room is a good thing. We know others who hate it. There are points in favour of both attitudes.

These days, when the housing shortage tends to make teachers — always tending towards immobility—even less mobile, it is worth while attempting to fill a sudden vacancy by advertising in the local Press. By convention, we look to London and the university towns when it comes to trying to find staff. For all we know there may be someone on our doorstep who could fill the breach.

Another emergency measure in a crisis we've known to succeed is informing the existing teaching staff of the sudden vacancy. There is nearly always someone who has a friend they've been hoping vaguely to join up with; staff don't always know what appointments you are offering until it is too late to call their friends' attention to the vacancy.

In an emergency the only source of help one would be inclined to avoid, even at the cost of beginning term with one member of staff short, is the parents. It is a very rare kind of parent who can come into a school on a temporary teaching basis; we may be prejudiced, we may have been unfortunate, but we're convinced it doesn't work out.

continuing Labour's Radical Reform

schools would ultimately be abolished, but as a first step "the best of the public schools and independent day schools" would be taken over as high schools. The inspection of private schools will be intensified and a licensing system introduced for these schools and also for correspondence courses too! There is something totalitarian in this latter proposal. This is particularly evident in relation to the proposal that the teaching at the universities should be changed so as to "take account of changes in our way of life and the community's needs."

The statement does not define its terms and does not therefore distinguish between private proprietary schools and endowed public schools. It does, however. make it clear that the Party would "take over" the best of the independent secondary schools to run them as high schools with an entry age of 15. The vague and rather sinister term "take over" requires very clear and careful definition. What is to happen to the statutes and instruments on which these schools are founded and governed? What is to happen to their endowments? Does the Party propose the seizure of the buildings and the confiscation or expropriation of their endowments? The great public schools of this country, too, are all religious foundations. What would happen to the religious life of those communities, whether Anglican, Roman Catholic or Methodist? Would the schools thus "taken over" become aided schools or would they be forced to accept controlled or even "county" school status? What would happen to the collegiate or capitular bodies which are in some cases the original governing body and "college" of the school? It will be interesting to see if the Labour Party can answer these questions in a manner satisfactory to those of their supporters—and they are not a few—who do not believe in the spoliation of religious foundations.

THE END-OF-TERM DRAMA

F. A. V. MADDEN airs a few of the headaches that besiege a headmaster before summer holidays

SINCE I am writing this column amid the welter, turmoil and drama of the end of the summer term perhaps I may be forgiven for being able to think of little else than the immediate cares that beset me. Why do we leave so much to be done in the last week of term? If you organise better that this, then you can, at least, read on with the enjoyment of conscious superiority. Contributory factors to the end-of-term "jam" have been the loss of a week through the Coronation holiday and the quite abominable weather. Our open-air swimming bath has been practically unusable. With the water at a temperature little over 60 deg. discretion has not unnaturally got the better of valour. We are, in fact, left with all the inter-house swimming events to complete whenever, if ever, we get a fine warm spell. The weather, too, has interfered with cricket and we have two house matches to play in addition to three more fixtures. There are five full school days left for all this, and then there is a school dance, an end-of-term sing-song, assembly, mark-sheets, reports, staff meeting, travelling arrangements, etc., to be fitted in somewhere and somehow. "Never a dull moment!" remarked my Senior Master this morning as he sent off the last of the G.C.E. papers. A knock at the door. Some boy has broken his arm. Another knock. Someone has lost his tennis-racket, and someone else his raincoat. A housemaster comes in to tell me that in his house the strings of a tennis-racket and two pairs of bathing drawers have been cut. Someone murmurs "Jack the Ripper" and we waste time speculating on whether there is a maniac abroad.

Almost every master has reason for assembling various groups of boys in order to cope with something, but because of this, no master is able to assemble all the boys he wants in the same place at the same time. Masters and boys who have presumably for weeks nurtured in their bosoms far-reaching schemes for reform invariably wait until the end of the term before pressing their schemes upon me. "When," murmurs the cricket captain, plaintively, as I emerge from chapel, "When, sir, is the Games Committee going to meet?" "Next term," I reply, rather fiercely. "But, sir, we must appoint a new football secretary and a new hockey secretary before the end of this term." I hurry away for there are Exam papers still uncorrected, letters still unwritten, boys still uninterviewed, masters still unsatisfied, my last Sunday sermon still unpolished—and this article, as you observe, still uncompleted. In case your complacency is now becoming tinged with pity for a chaos so unlike your own, let me assure you that somehow we shall win through. Or shan't we? Time (and very short time) will tell.

* * *

ONE of the cricket fixtures referred to above is that of the Staff versus the School. For this occasion, which takes place annually on the last Wednesday of term, three masters who can play cricket are joined by three masters who can't. These in turn are joined by two school governors, two cricketing friends of any of the above, and any other one person who can be pursuaded to risk life and limb. This last person used to be the headmaster but after

last year I finally decided to retire from what I laughingly described as "first-class cricket." The year before last, after months of only sedentary activity, I rashly attempted a short run in the first over. I pulled a thigh muscle, was given a runner, and having in my pain and fury made a few savage but rewarding strokes, retired to hobble through the holidays in great discomfort. Last year the School had a fast bowler from whom I particularly feared some crippling, if not fatal, injury. Fate gave him into my hands. He committed a feat of insubordination so heinous that I had no alternative but to put him in detention for the afternoon. At least, it might be truer to say that I did not seriously consider any alternative, reluctant as I am on all normal occasions to inflict any penalty that will deprive a boy of his games. Having incarcerated my victim in a classroom I advanced lightheartedly to the crease. What followed had all the elements of Greek tragedy. What Æschylus could have made of this perverse malignity of fate! The slow bowler (whom I despised) delivered a ball high into the air. With unerring accuracy it descended on to the big toe of my right foot. I hobbled through the next holidays in even greater discomfort until a doctor removed the remnants of my shattered and blackened nail. It is true that I have grown a new one in time for this year's match but I intend to keep it intact. If, while watching the game in front of the pavilion, I am struck on the head by a ball from the nearby nets no one, I feel, will be particularly surprised.

* * *

LIFE during the second half of this term has been further complicated by the periodical appearance of a professional film-maker and his colleagues who have been engaged in shooting a sound and colour film of life at the school. The possibility of outdoor shots depended entirely on the weather. In other words, we needed the sun and the sun has been uncommon coy. Sometimes it has been dark; sometimes it has been raining; frequently it has been dark and raining. During brief spells of visibility all the proposed scenes have been filmed and we await the result with some excitement. The scenes and sounds selected to give a picture of the life of the school have included the surpliced choir entering Chapel, the singing of an anthem, the school orchestra, an extract from a Shakespeare production, the Cadet Corps, the swimming bath, the all-school P.T. and gym display, cricket, Sports Day, an experiment in the lab., a French class singing French songs, an Art class in the open and a meal in dining hall. I wonder how much of all this will survive in the final version? All I trust is that I shall never be asked again to stand at a lectern and turn the pages of a bible "eight times as slowly as usual."

* * *

WHAT quality would you particularly look for in a school matron? I heard this question being put recently to three experienced boarding-school masters. The first said: "An understanding of how a boy's mind works." The second said: "Good temper, equanimity; someone who does not get temperamental when thing's go wrong." The third said: "A keen interest in food." I suppose if you put the three things together you would not go far wrong. I wonder what answers one would get from three boarding-school parents. Perhaps one should take separately three mothers and three fathers for I daresay they would differ considerably in their approach to the question. There was an article in *School Management* entitled "The Perfect Matron." Alas! I cannot remember what the writer stated to be the most desirable qualities. And what, you may ask, is my own answer to the question? Brer Madden "ain't sayin' nuthin'." He knows that his matron reads *School Management* and he is not a man to take unnecessary risks. All that he might venture to suggest is that to read *School Management* is clearly one of the essentials.

Our Front Cover

August is traditionally a month for sailing—regattas and Cowes Week—but sailing, in the ordinary way, must seem a far-off pleasure for schoolboys in a central London secondary modern school. Our front cover photograph disproves this: it shows the "Leo," a 15 ft. sloop which was built by the boys of Leo Secondary School, Peckham, being sailed on the Thames immediately after its recent launching. The "Leo" was entirely designed and built at the school: even the metal parts were cast in the school workshops. It took fourteen months to make, being worked on during craft classes and, with equal enthusiasm, in the evenings and free periods. The boat will be kept at Lambeth—where the school already has three canoes of their own making—and will be sailed by boys still at the school and by past pupils who helped with the construction.

teaching children ABOUT HEALTH

Who should give health instruction? How much should be taught and at what age? Consulting Medical Officer to Rugby School, Dr. R. E. Smith, answers these problems of health education.

THE question of health education has many facets. By whom should it be given? How? When? All these points have to be answered. Who should teach health? That is solved by enlisting the help of all who hold sensible views. How health is taught depends on the teachers, who have ample opportunity to discuss health in almost every subject. When is important, because the boy or girl must be able to understand the simple physiological principles involved. In addition there is room for what I might call a formal course of health education. Above all, there is the need for something more than knowledge—a sense of responsibility perhaps exemplified by what a headmistress tries to inculcate in her girls that "The morals of this country are in the hands of the women," which taken in conjunction with the Arnold tradition gives life a purpose.

Health is difficult to define. "To live in harmony with one's environment" is not enough. There must be a creative urge as well. But doctors always start with mortality figures, later discuss morbidity figures and last of all consider prevention. In my 19 years as school medical officer, "natural causes" were the cause of death of four boys and there was one death from a bicycle accident in the holidays. I ceased to be medical officer in 1950, i.e., shortly after the end of the 1939-45 war, in which more than 100 boys for whose health I had been responsible while they were at school were killed or lost their lives as a result of war. To me, therefore, *war* is the major enemy of health. In the 1914-18 war an even larger number lost their lives.

I can illustrate who should teach health by quoting two people whose words are indelibly imprinted on my mind. The one was an editor of a textbook of nutrition who believed that a high standard of nutrition (in the best sense) was the greatest contribution science could make to peace. The other was a canon in Liverpool Cathedral who in 1947, on the only occasion I have had the opportunity of visiting that beautiful building, was about to show the cathedral to 40 German pastors on a goodwill mission to England. He explained how this Anglican cathedral had a Roman Catholic as its architect and how the Roman Catholic cathedral had an Anglican as its architect: how the architect had moved its axis so that those coming up the Mersey and perhaps to England for the first time could see this magnificent House of God in its best perspective and so that the sun as its descends in the afternoon lights up the cathedral to better advantage. And then he said this (and I believe these were his exact words): "That window is boarded up because some thoughtless man dropped a bomb there in 1943, but it made no difference to our worship. We choose what music we think best and Johann Sebastian Bach is still our favourite." I thought then that if we had his tolerance, his willingness to forgive and his ability to see what is best in others, then our children might one day live in a peaceful world. I hope I have shown that, in the pursuit of health, all can help although in diverse ways.

I have said that a course of formal talks is advisable, and the question arises: "When?" If at one age only, then at

entry to a public school—say at 13½. The syllabus I used is:—

(1) Definition of health. Value of positive health. Negative health or disease. Man as the super-perfect machine. His need for petrol, i.e., food, and oxygen for combustion. The basis of energy. The transport of food and oxygen to the parts where they are wanted. The breakdown products of combustion. Their excretion. The co-ordinating mechanism, partly chemical but mostly nervous.

(2) The sources of food. Their use not only for energy but for growth and repair. The comparison with building a house and the need for many kinds of suitable materials. Where these are usually found in foods, and the provision Nature makes for us in combining them so that a well-balanced diet is what is best. Teeth. The processes of digestion and metabolism and excretion, which illustrate that though there are certain rules the maintenance of health is not like walking on a tight-rope.

(3) Where food is stored. Its transport during exercise. Details of the circulation through the heart and blood vessels and the lungs, and the purpose of it. Part played by nose.

(4) The principles of training. Gradualness. "Get fit" the first essential. "Keep fit." No fears of strain and no fears that athletes suffer in later life. Various forms of exercise and their effects. After exercise. The care of the skin. Rest. Sleep and holidays.

(5) Interlude. The lives of some blood cells to illustrate:—

(a) The circulation and the lungs;

(b) The transport of oxygen;

(c) Wear and tear—life and death of tissues; and

(d) Fights against infection — boils, colds, etc.

(6) So far we have considered the individual; now for the race. Nature's provision for perpetuating the race. Details of the male organs of reproduction. The elaborate mechanism to prevent staleness. Nocturnal emissions. The seed—many millions, any one of which will fertilise the ovum, which then begins to grow and after an interval the baby is born, so that the circle of life is started again.

(7) Principles reaffirmed. The need for co-ordination. The need for a purpose. The fight against disease. Artificial immunisation. The healthy body quickly overcomes infections. We have great chances at work and at play to be healthy. Our trust for the future.

The lectures can be grouped together and got into five or six. A model, with heart, etc., which can be taken to pieces, helps. Later a refresher course can be given, and here one can add knowledge that the 16-year-old boy or girl should receive about sex without making it a separate subject.

I have said that nearly everybody can help. The historian can illustrate "The conquest of epidemic disease" — which I have put in inverted commas because I have in front of me a book by Professor C. E. A. Winslow by that title. In an exciting chapter he quotes Thucydides thus: "Appalling too was the rapidity with which men caught the infection, dying like sheep if they attended on one another, and this was the principal cause of mortality. When they were afraid to visit one another the sufferers died in their solitude, so that many houses were empty because they had no one left to take care of the sick; or if they ventured, they perished, especially those who aspired to heroism. For they went to see their friends without thought of themselves and were ashamed to leave them, even at a time when the very relations of the dying were at last growing weary and ceased to make lamentations, overwhelmed by the vastness of the calamity. But whatever instances there may have been of such devotion, more often the sick and dying were tended by the pitying care of those who had recovered, because they knew the cause of the disease and were themselves free from apprehensions. For no one was ever attacked for a second time, or not with a fatal result."

The classic and the historian can vie with the divinity master, who can show how Moses, with divine inspiration, made laws for the children of Israel. As Winslow says: "The system for controlling 'leprosy,' involving differential diagnosis, isolation, quarantine and disinfection, remains the most brilliant application of rational epidemiology of ancient times and was a controlling influence in public health practice down to modern days." The mathematician also helps for this reason. In his teaching of statistics, a maths. master tells me that the examples, which are based on fact, in Professor Bradford Hill's book on "Medical Statistics" are the best available for teaching senior boys. Extraneous help comes from the police, who are more than willing to instruct the young in road safety. The quarter of an hour needed can

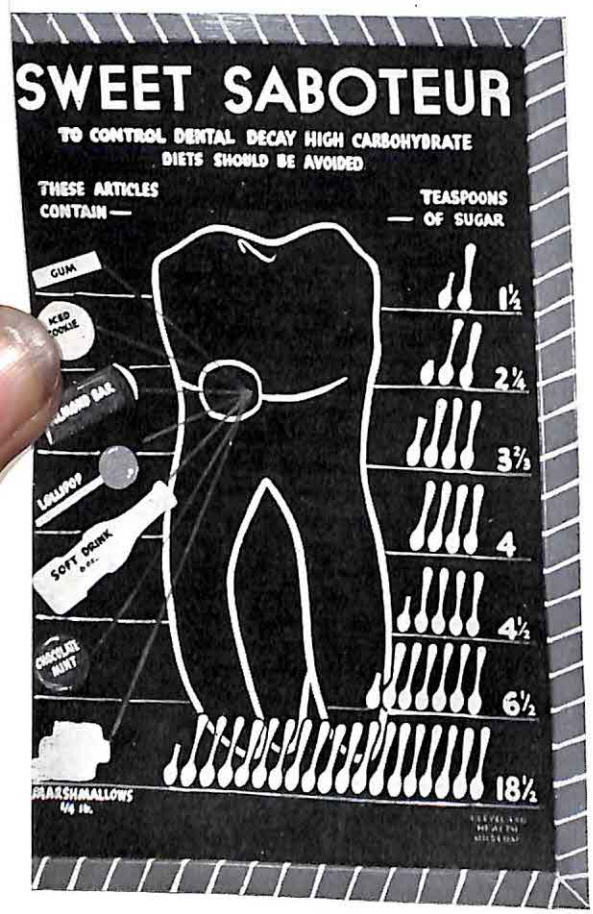
(Continued on page 346)

America's health museum

GREAT museums and collections of the world are devoted to ancient masterpieces and historical relics: the Cleveland Health Museum—as up to date as possible—specialises in man. It is a people's museum in the real sense of the word, designed to help every person to get to know himself.

The greater a museum, the more her exhibits are roped off; visitors can only gaze at them. The case is entirely different in the Cleveland Health Museum. There is not a "hands off" sign in the entire building. Just the opposite. The average man is invited to push buttons, whirl knobs, pull levers, turn cranks, ring bells. By this visual, popular means, the visitors demonstrate to themselves how to lead a healthier life, and learn more about themselves, what they are made of, and how they work. This famous Health Museum is "admission free" and run without profit. Since its official opening, up to a quarter of a million visitors streamed through its doors. And it is conservatively estimated that for every person who sees the exhibits housed within the Museum's four walls, ten are reached through the Museum's extension services—with exhibits at County and State fairs, radio broadcasts, school programs, lectures, etc.

The Cleveland Health Museum began its activities without shops for wood work, art work, or photography, or a projector for slides, equipment for sound motion pictures, or classroom facilities. By 1942, only two years after its opening, all these had been added. Six years after its opening, the Museum moved to its present larger quarters, in May, 1946. Here facilities are even more adequate, and a special building is devoted to the studios — the "health education laboratories" of the Museum. In these studios, exhibits are constructed for the Museum, and for other museums in America and abroad. Requests for loans, exhibits, films, slides, come from near and far . . . and calls for the Museum's services increase week by week.



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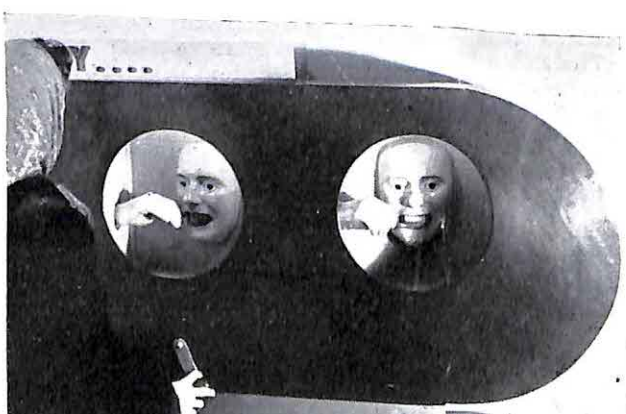

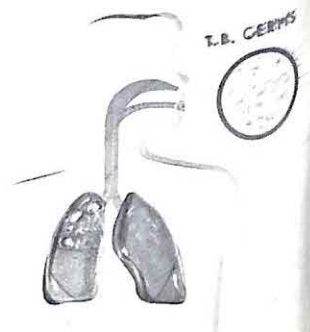

A variety of shapes and sizes and colours in exhibits maintains visitors' curiosity as they tour the Museum. Owing to Dr. Bruno Gebhard, world-famous director of the Museum, three-dimensional models are preferred to flat posters; animations by repetition of movement makes learning more permanent; and wherever possible the exhibit is constructed so that the visitor must "make it work" himself.

Actual samples bring lessons closer to familiarity, and therefore easier to comprehend. In the exhibit "What Are We Made Of?" for instance, the actual samples of our bodily components are used. The visitor views a lump of carbon, a certain number of quarts of water, a saucer of phosphorus, a tenpenny nail made of iron—while a sign asks: "Total Worth Of These Materials One Dollar?"

In an exhibit, blood circulation is shown by a red light that travels the blood cell's circuit when a switch is flicked on. A lever works the artificial lungs . . . a replica of the heart thumps out seventy-two heart-beats to the minute, and a red light flashes at each beat. In another exhibit, the visitor moves the lever to change the heart-beats for the various animals and fish, showing the difference between the rate of man's heart-beat and those of animals . . . the posture lady can be poked from her poor posture to an ideal stance . . .

In the "Wonder of New Life" room, life-size models show the stages of birth, the growth of the embryo, the female and male organs. From those models adolescents

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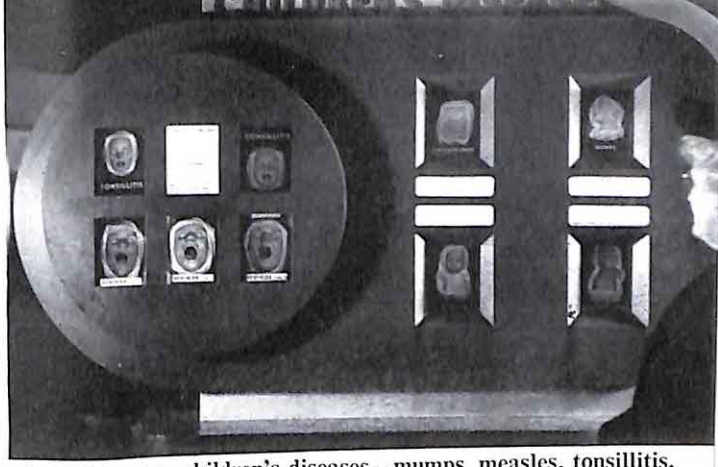

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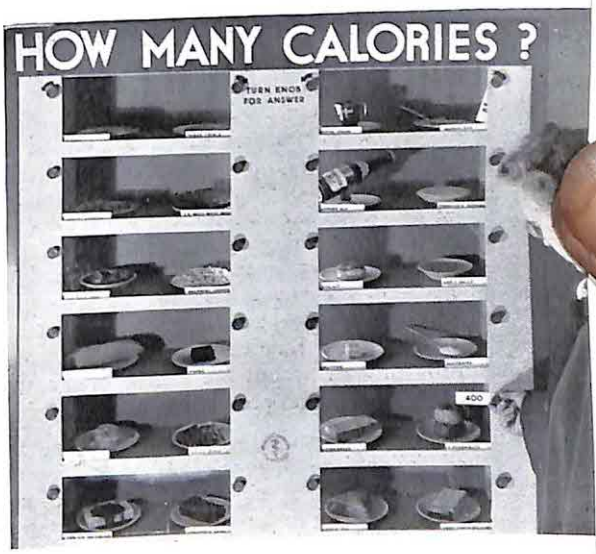
Some common children's diseases—mumps, measles, tonsillitis, diphtheria, chickenpox and scarlet fever—and their symptoms are shown above.



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6. The cabinet enables the visitor, by turning a knob, to find the calorie value of various foods and illustrates the calorie needs of persons in sedentary and manual jobs.

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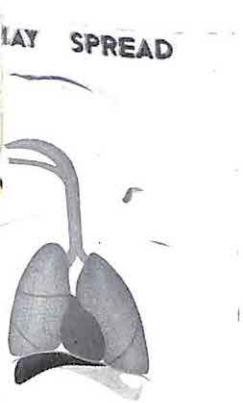

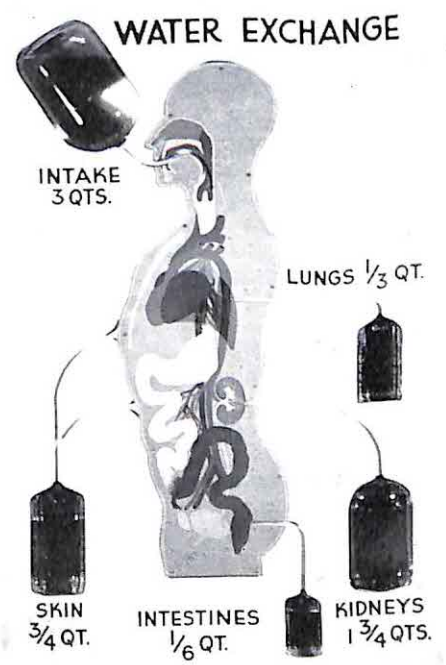

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how The Bursar solved

a problem of water supply

. . . or rather how "Dan's Diggings," the brain-wave of a schoolboy, carried out by volunteer workers, solved it for him, and helped a school to build a swimming pool.

DURING the third week in February, 1952, our boys and girls decided to start a very big job and a very tough one. In the years between the wars a generation had excavated for and constructed their own outdoor swimming pool. Being in the country, the water supply problem had to be solved. The nearest source was a stream, rushing in winter and meandering through the summer, a hundred feet below, a steep drop through woodland. This water was pumped up to the pool through 2 in piping.

After the war it was found the pumps had fallen into disrepair and would cost a great deal to put right. The level of the stream seemed to have fallen—springs perhaps used for other purposes—and pollution was killing the young trout and causing quite an uproar among those who loved the great river which met the stream within a mile or two. Attempts to pump up by fire engine and trailer pump resulted in a pea-soup mixture to begin with: how to keep this static pool clear of algæ and organic slime for as long as possible has always been a problem, and the sight of this dirty water pouring in was very discouraging.

Permission to fill from the mains from the local reservoir, itself depending upon the big river, was not granted readily. When we drew our 55,000 gallons nobody else in the neighbourhood could draw any water. The difficulties are obvious, for whenever it was hot bathing weather the river was low, and if we were allowed to draw either late at night or at certain hours we created such a disturbance to the system that the first 5,000 gallons were a clear rusty colour from the ancient iron pipes, and although no doubt a tonic to swallow, the discriminating thought twice before plunging in.

The temperature of the pool might be lovely for all, but to laze about in muddy copper sulphate appealed to very few. The school felt they might as well not have a pool if such an indifferent water supply had to be tolerated. The school, like many others, had little money to spare in post-war days—days when the cost of labour is a major item.

One day the clerk-of-the-works took two or three senior boys a hundred feet down below the pool and walked through the trees by the bank of the stream. Almost crawling under great laurel branches, they came into a green cavern of laurel where a clear spring of cold water gushed from the foot of the steep wooded bankside into the stream. Winter flooding had carved away the sides of clay and the gulley and its mouth could be likened to a rather bulbous and misshapen pear. There is a steady supply of water throughout the summer. A line from this point slanting up through the trees to the pool covers 750 feet. "Work it out, boys."

What I am telling you about this month is not just another project carried through by school children. There can hardly be a school these days which cannot proudly boast about some special achievement or another. So much work is done by pupils these days to help keep down costs, and bursars do know just how the tackling of domestic chores can save on the wages bill. Nevertheless, we are apt to think that children's work very often has to be done over again; that jobs are left unfinished; that skilled daily supervision is necessary;

that tools will be broken and left out in the rain, and so on.

This job has opened my eyes to the possibilities when the right boy or girl appears. Give him your wholehearted backing, and the results can be amazing. You can never be sure where you will find such a child. A pupil you've looked upon as irresponsible can during a summer holiday change into a useful member of society (this is the distant view from the bursar's office and not the one from the teacher's desk). There is the quiet type who goes through the school always on the edge of things who, given the particular job and opportunity, shows a flair for organisation and an ability to get others to follow where he leads.

Back to my story. Dan, for so I shall call him, came to my office that February with the general plan worked out. He had talked with engineers, plumbers and electricians, and found that if a reservoir was constructed below the spring there would be sufficient supply to pump up and fill the pool. The pump would have to lift just over 100 feet and deliver at the rate of 1,800 gallons an hour to be of any use. This piece of equipment would cost £75. It was found that 750 feet of 2 in. piping would be needed between pool and suggested reservoir—costing £30 to £40. Electricity would have to be laid on from a nearby supply, involving poles to carry cables, etc. As this must be done by the experts by by-law, another £75 or so would be needed. The reservoir must be fenced around securely with chain link to keep the public out and their children away from danger and mischief—another £20.

Filling the pool four to five times a season from the mains would cost about £40—six years to get my money back. . . . Three pounds a year for running the pump electrically.

Dan was certain of himself, of sufficient co-operation from the children, that the plant would do the job, and of his faith in the generations following him. I am glad to say that I decided to back him and his helpers to the limit.

In the third week of February, 1952, the work began. Dan called for volunteers every Saturday up to a maximum number of twelve, the most he could cope with at a time. The first step was to excavate around the spring for the reservoir, which was to have a similar shape to the pear-shaped contour of the gulley. The clay was heavy going and boulders were in the way, but, once cleared, brick and concrete sides would be built with a system of filters before the reservoir to deposit sand brought down by the spring waters. Every morning, during an hour spent by the whole senior school in useful work, a small gang of three carried on between the big week-end efforts. On games afternoons non-footballers might go down to "Dan's Diggings," as it came to be called.

During the Easter holidays Dan and a friend stayed on at school for three weeks, plugging away every day with the help of day boys and girls living nearby.

The summer term started, and throughout May the work was carried on with a will. Snags occurred, such as small subsidiary springs on the bottom of the reservoir which upset the concreting, and they had to be channelled away along one side. To see girls and boys of all descriptions and persuasions toiling in gum boots and dungarees was an education, especially as the scene of activity was so hidden by undergrowth and so far from school that there was no honour to be gained by publicity.

The bricks were old ones left over from a building alteration in the school; they were carted down and trimmed and laid, making the job more difficult but, Dan suggests, probably stronger. Everyone in the school helped in some way and 1,600 man-hours are estimated to have been put in by the time the job was completed in June.

A few figures will be instructive. Some 60 tons of clay and boulders were removed to form the filter chambers and reservoir. About 15 tons of building materials were wheeled by barrow along a muddy path to the site, which could only be approached on foot—a distance of a hundred yards or more. All the building, design, planning, etc., was carried out by the pupils with the exception of the installation of electricity. We laid 750 feet of piping through the woods up the steep hillside, and this was primed and finally painted black with a bitumastic solution.

The spring yields 600 to 16,000 gallons an hour, according to drought or flood, and the reservoir holds about 5,000 gallons.

This year has been the testing time, and it has proved completely successful. During May and June there has been sufficient water coming in for continuous pumping for 30 hours to refill the pool after a fortnight's use. In addition, six hours' pumping a day was required for freshening. In July a dry spell has meant pumping on and off for three days to fill the pool. Now it costs under ten shillings to fill where before it was nearly ten pounds.

All honour to Dan and his pals, and already a successor has come forward to organise a small gang for future maintenance.

A reproduction from an actual coloured photograph of some of the prepared vegetables produced by F.M.S. (Farm Products) Ltd., Cereal House, Mark Lane, London, E.C.3.
Note the way the colour is retained after reconstitution.

DRIED VEGETABLES

can be more than "emergency food" says Doreen Davies: she describes how to prepare these dehydrated goods for large-scale catering.

IN spite of the fact that drying is one of the oldest methods of preserving foods, dried foods are too often regarded only as emergency supplies. Our experience during the war taught us the value of dehydrating foods. There was less bulk to be transported; storage was easy under the most impossible conditions, yet many good meals were prepared from a small stock of ingredients. Dried foods formed part of our basic diet—where would we have been without dried eggs or powdered milk? Troops in many stations depended on dried vegetables. It hardly seems logical that foods which had such an importance during difficult times could have a negligible value in more plentiful days, and although the demand for dried foods is naturally much smaller, there is still a place for these commodities in our national store cupboard.

Research on the technique of drying is keeping apace with experiments in other fields of preservation and marketing foods, and it is now possible to buy dehydrated foods which, when reconstructed and served, are difficult to detect from those freshly prepared.

Drying is no longer a very slow procees of exposing the food to sunshine and air; most foods are dried in vacuum or in a special gas to minimise the loss of colour, flavour and nutrients. Indeed, apart from the loss of vitamins, dehydrated food can be as good nutritionally as the fresh product.

Dried soups have already gained popularity and when reconstructed and served with perhaps a good garnish of chopped, fresh parsley or cress, their flavour is most satisfactory. Especially good are those based on milk powder as being marketed by the famous manufacturers of dried and canned milk products.

A manufacturer who prepared tons of dried vegetables for Government Departments during the war is now marketing many varieties which are specially useful for large-scale catering. Potato powder is already well known. This powder is a very convenient means of speedily making up a very creamy mash, very light and fluffy when an electric mixer is employed. The potato powder is simply whisked into hot water—a mixture of milk and water is better —and it is stirred over a slow heat until enough potato powder has been added to give the right texture. About 1½ ozs. of salt is required to each 1 lb. of potato powder. The powder is also excellent for making potato soup. Extra flavour which is necessary, can be given by first frying sliced onions in a little margarine or dripping before adding the stock and stirring in the potato. One pint of stock needs only 2 level tablespoons potato powder as during simmering the potato thickens considerably. The addition of a very generous garnish of parsley or chopped cress is essential to add a trace of Vitamin C.

A number of tests carried out on some of the more unusual dried foods now being made available for catering have shown that all the products are of good standard. In general, they retain their texture well; the colour is excellent, but some need rather more salt than the manufacturer suggests, and the flavour of certain varieties is less conspicuous than that of the fresh ones. As far as onions, swedes and turnips are concerned, this may well be an advantage to many consumers and may also account for the fact that the dehydrated mixed vegetables and the Russian Salad mixture were preferred when a test was made comparing them with similar samples obtained from cans. There is no strong odour as is invariably present when mixed vegetables are bottled or canned.

Here is a brief summary of points arising from the tests carried out on a number of samples of dehydrated foods.

Beetroot . . . Dehydrated beetroot, when soaked and cooked, retained its texture and colour perfectly, but it was felt that a little vinegar was essential to improve the flavour. The soaking time should be at least 8 hours. The beetroot is not quite as tender as the freshly-prepared product but is most satisfactory for salads.

Cabbage . . . This vegetable takes a large quantity of water to reconstitute and cook, and as the manufacturer suggests, it is necessary to cook the cabbage quickly, making sure the lid is on the pan. The result is a very good coloured vegetable, but it needs the addition of salt, pepper and a little margarine to make it really palatable.

Onions . . . Dehydrated onions are reconstituted with 5 pints of water to 1 lb. of dried onion, and soaking time is very short—20 to 30 minutes—which is quite satisfactory. The onion will absorb all the water and is not too moist for frying as well as using in soups and stews. The onion, when fried, becomes quite crisp and looks attractive.

Celery . . . The shredded, dried celery is to be highly recommended for flavouring soups and stews. It is not necessary to soak it before use.

Swedes and Turnips . . . These require a large quantity of water for soaking—9 pints of water to ½-lb. of vegetable. This makes about 60 servings. These vegetables are soaked in boiling water and left to stand for 30 mintues before cooking. When tender the vegetable needs only to be drained and seasoned before serving.

Garden Peas . . . Unlike the familiar processed peas, these peas which are dried by the newer methods really do retain their attractive, fresh colour. Nor do they need overnight soaking, but if it is more convenient to soak them in a cool place before cooking, no harm comes for the extra time allowed. Soak the garden peas with the boiling water just covering them, adding a pinch of bicarbonate of soda, especially necessary in districts where the water is hard. Soak for one hour and then treat like fresh peas and cook gently for 15 minutes.

Apple Rings . . . Of the number of fruits which have been tested, apple rings are very commendable. The colour is excellent and they need only to be soaked for about one hour before cooking. When soaked overnight they may be used in fruit salads without further cooking. It is necessary to soak the apples in about 7 pints of water to 1 lb. of apple, and add 8 oz. to 1 lb. of sugar during cooking. 1 lb. apples yield about 6 lb. pulp.

Prunes . . . These need to be soaked overnight and although manufacturers suggest soaking in water, soaking in strained, cold tea with the addition of ground cloves improves the colour and flavour considerably. The prunes need to be sweetened; 1 lb. of prunes require about 3 pints of liquid for soaking, and ½-lb. sugar. It is advisable to dissolve the sugar in the boiling liquid before soaking the prunes. Prunes do need a little cooking to make them tender after soaking.

Bilberries . . . This is an unusual fruit to find in dehydrated form but is a very worthwhile buy. 1 lb. will fill many pies. This fruit only needs about 20 minutes' soaking in syrup of sugar and water, before cooking, but I suggest using half as much water as the manufacturer directs for this fruit. The flavour is more concentrated when 4 pints of water are used to reconstitute 1 lb. of berries.

Rhubarb . . . This is also available dehydrated and is a good stand-by, especially useful for pies and tarts when dates or other dried fruit are added to improve the flavour and counteract the tartness. Soak the rhubarb before using it in the pies—it will cook with the pastry.

continuing

TEACHING HEALTH

be added to one of the health lectures. An occasional visit from the Royal Society for the Prevention of Accidents gives a fillip to this subject.

It is, of course, important to sort out facts from fictions. Here consultation between members of the staff probably helps.

The points in health education which I like to emphasise are these:—

(1) That the healthier the tissue, the greater the resistance to infection;

(2) That the healthier the tissue, the greater its efficiency;

(3) That the healthier the tissue, the greater its span of useful work;

(4) That all tissues in health work together for good;

(5) That the human body is more economical, more efficient and more worth while looking after than any machine; and

(6) That there is a purpose underlying all this.

FOOD POISONING in schools
has been much in the news recently . . .
Professor V. H. Mottram explains
some of the errors that lead to trouble, including

REHEATED FOOD

WHEN, more than three decades ago, my wife and I set up housekeeping, we were warned never to eat twice-cooked food. We asked why and were told that the large family of the lady whom we had consulted all became ill after eating shepherd's pie. Now we were fond of shepherd's pie, had often eaten it without evil consequences, and proposed to eat it in future. In fact we did, and never bothered, in bringing up our family to avoid twice-cooked meat. Indeed, I have a recollection of a large shoulder of mutton one camping holiday which started a week as a roast joint and finished after various transmigrations as a soup. Twice-cooked wasn't in it! So we paid little respect to the admonition.

However, when one of us came into the orbit of Dr. Cuthbert Dukes we obtained a theoretical explanation of why our adviser on housekeeping had managed to produce food poisoning by means of twice-cooked food. At some stage in the process of making shepherd's pie the meat and potatoes had become infected with some microbe or other and these had multiplied because the mixture had been left in a warm place or, conceivably, had done their multiplication during the time the pie was warming up in the oven, and so made the pie a danger to those who ate of it.

Now it doesn't have to be any particular microbe, though some are worse and more pathogenic than other (i.e., give rise to a specific disease such as typhoid or paratyphoid fevers). A very carefully-investigated example of food poisoning was shown to be due to contamination of potato purée with non-pathogenic microbes. One gramme of that purée (1-28th of an ounce) contained 200,000,000 microbes, of which 50 million were *"Bact. coli,"* a microbe which does no harm when it lives in our large intestines. In fact, it is all over the place. It lives in manure and is carried about on the feet of flies, on our boots and clothing and in various ways gets into our food and drink in small quantities. Milk is a common vehicle. Only when it gets into a suitable medium for multiplication, as into that potato purée, does it become a danger. The history of that potato purée was that after its preparation it had been *left for eight hours on a rack over the stove.* That gave the microbe—*Bacteria coli communis*—its chance. It took it, reproduced itself many million times, till in an ordinary helping of mashed potatoes there were 224,000,000,000 of them. Moral: Never keep foods *warm* for a long time; keep them *boiling hot* or *very cold,* and when heating or cooling them do it as quickly as you can. It is only in that intermediate stage of temperature, somewhere around body heat, that microbes multiply quickly. They cannot stand high temperatures near boiling point —it kills them—and low temperatures (around freezing) though not fatal, at least put them off their stride.

In the last few years we have all become disturbed over the epidemics of food poisoning. They have increased enormously, and just when we were beginning to congratulate ourselves that we had scotched them, in these last months we have had two very severe outbreaks, one in a school in Somerset and one in Lancashire. The former was due to infection of the milk (one cow in a herd was infectious) and the other to infection of meat pies. Fortunately, the epidemics were not mortal though hundreds of people were severely ill.

In all boarding schools and, indeed, in day schools where school meals are taken, there are often mild epidemics of food poisoning. My own family have reported to us at intervals, both from preparatory schools and public schools, that epidemic diarrhœa was going the rounds.

Those who are interested in the bacteri-

ology of food poisoning have been inclined to inculpate rather specific microbes. The commonest ones are the great Salmonella group which account for more than 70 per cent of the outbreaks of food poisoning in Great Britain. (The Somerset upset was due to *Salmonella Dublini.)* In 1944 the Medical Research Council stated that there are more than 140 named types of Salmonella microbes. According to Dukes* it is probable that all infections are due to living microbes and not to the poisons they make. All of this group are non-spore bearing, so they cannot stand being boiled or well cooked, though they might survive if they started in meat and this was underdone.

How do the Salmonellæ get into the food? If it is meat from a diseased animal (rare in this country). If milk, then from an infected cow. (The cow may be a carrier, keeping a culture in its intestine and so excreting it in the dung. It is almost impossible to get milk uncontaminated with cow dung. Sometimes the microbes are spread by mice and rats, and actually one rat poison is a culture of Salmonellæ microbes said to be harmless to human beings. It is in the public's interest to state that this is untrue. Flies possibly spread the microbes. (Recently it was announced in the newspapers that flies caught on a refuse dump had food-poisoning microbes on their legs.) So caterers should cook their meats well, have pasteurised milk and shield all food from mice, rats and flies. (All houses in Canada and the United States are fitted with fly-screens in summer and all meat markets are protected from flies.)

Other microbes handed on by food are those of dysentery (too common in Great Britain), cholera (now, fortunately, extinct in this country), typhoid and paratyphoid fevers. With these you can say that you can eat them or drink them but you cannot catch them—as you catch measles, chicken-pox or scarlet fever. Somehow or other if you get these diseases the microbes from a sufferer's or a carrier's intestine must have got into your food or drink.

Finally, until the day before yesterday (I'm writing on July 16) most of us thought that the list ended with staphylococcal and streptococcal food poisoning. These microbes make poisons when they grow in food and even if you cook the food the poisons made persist and kill you. We all grow staphylococci in our skin and noses but the ordinary ones don't, thank goodness, produce poisons. It is the ones that cause boils and abscesses which appear to be dangerous. However, you should train the staff in the kitchen to wash their hands before preparing food, to be careful in blowing their noses, not to sneeze in the kitchen, and not to handle food if their hands are septic.

One would think that all these methods of getting poisoned by food were quite enough. But the report of the Medical Research Council for 1951-52 has added another. And this one most certainly concerns all schools. I quote from the *Times* abstract of that report (July 15, 1953)—the facts are put so clearly that there is no need to elaborate or explain, though I have omitted one piece and italicised a phrase or two.

"On the subject of bacterial food poisoning the report states that *the latest addition to our knowledge* is the recognition of another organism responsible for such outbreaks. During the war organisms belonging to the group of anaerobic spore-bearers known as *Clostridium* were isolated from meat dishes or gravy *that had been cooked on the previous day.* Such outbreaks of food poisoning investigated . . . were all associated with the consumption of food prepared in large quantities, *as in school canteens.*

"The usual history," states the report "is for the meat or gravy or stew to be boiled up in large saucepans, to be allowed to cool down overnight and to be warmed up for the school dinner the following day. Symptoms of food poisoning come on about 12 hours later. Bacteriologically, *the food is often seething with anaerobic spore-bearing bacilli.*

"It would appear that when the meat is boiled up, all organisms except those that have spored are killed and all oxygen driven off. The anaerobic spores then find themselves in an excellent nutrient medium and therefore start multiplying as the meat slowly cools down. By the next day they are present in numbers sometimes approaching hundreds of millions per gram of food."

Moral: If you have to prepare food a long time before it is eaten, see that it is cooled rapidly, and when reheated, reheated rapidly. But it is best, of course, never to prepare food long beforehand though, as a practical person, I ask how is it possible to serve everything the moment it is cooked? I cannot do it in an ordinary small household; and in a school . . .?

The wonder is, not that there is so much food poisoning around but that there is so little. The fact is that most healthy stomachs can kill off a few microbes; it is only when they come in battalions that we succumb.

* "Bacteria in Relation to Domestic Science," C. E. Dukes, 1947. Oxford University Press.

HOUSEKEEPERS' NOTEBOOK

by Elizabeth Midgley

EVERY domestic bursar or housekeeper in a school or schoolhouse prepares well in advance of the long vacation, a list of work to be done during the holidays. If she is wise, which virtue grows with experience, she tabulates the list with respect to the degree of importance and urgency of such work. Workmen's holidays, the vagaries of the weather, delay in receiving supplies of materials and equipment can all play havoc with the most carefully arranged plans. But there are always those minor items of term-end work to be surveyed and remedied by the handy man or woman.

Before school goes "down" inspection and listing of this almost routine work to be done—the dormitories and washrooms, etc. —can be made. Notes of faulty castors on beds or chests, damaged wire-mattresses or springs and coverings of mattresses, missing hooks and pegs and rails in wardrobes, insecure fastenings on doors or cupboards, drawers without handles or knobs or those stiff and awkward to open or close, are some of the ever-present items of work. Linoleum needing repair or floorboards worn by faulty castors, windows which do not open or close easily, frayed window cords—these are some of the more important matters to be watched, and windows which are cracked and loose through the loss of putty are matters which, if neglected, may cause serious harm. Wooden stairs protected at the edge by rubber strips should be examined and checked for any length which may have worn loose. The duckboards in bathrooms and swimming baths need regular inspection and repairs to broken strips or protruding nails are often necessary. Bedroom mats, doormats and stair-carpet may generally need overhauling and repairs to binding and worn places effected. Carpeting on staircases should, when possible, be moved up or down a few inches so that the strain on the carpet drawn tightly over the edge of a step is distributed. Re-laying the carpet on a staircase of any importance is an expert's work and if badly fitted can be quite dangerous to those who use it.

The entrance halls of any house can create an atmosphere good or bad by their beauty and the obvious care bestowed upon them or, alternatively, by their drabness and uninviting appearance, can chill and depress the visitor. Curtains and counterpanes in dormitories and other rooms should be, when possible, examined by matrons and serving maids before being packed for the laundry. When removing rings or hooks or wires, etc., faulty ones should be put aside and damaged ruffling-tape or torn and frayed fabric noted and mended. If there is no spare material for repairs, a valance or pelmet or even a frill might be unpicked and used. Later, a plain coloured pelmet or hem or facing could be made to replace the "borrowed" fabric. Repairs executed before the curtains or covers visit the laundry often prevent aggravation of the damage already done. It costs little to purchase a few yards of unbleached cotton and, home-dyed to one of the colours in the figured material, can reinforce a worn or torn set of covers or curtains, using the backs of chair cushions for repairs and replacing them with "backs" of the dyed material or with material bought in a suitable colour. Sometimes it is advisable to use one of a set of loose covers in a room for repair work and make a new cover for the sacrificed chair which can echo a colour note or create a new one in the room. Similarly with curtains in a room large enough to "bear" a new note.

Textiles are a good buy at present and linen goods (including figured materials) have not been so inexpensive for a long time. But it cannot be reiterated too frequently that cheap material depends on width very often and width, size and type of pattern and the use to which the material will be put all add up to the good "buy." A one-way pattern can be expensive, too.

* * *

Most towns have a firm which is expert at wire work, and repairing damaged wire mattresses is a piece of work which such a firm will undertake. The firm will send a man or two perhaps and make a survey of the bedrooms and execute the repairs on the spot in a short time. If this is done at the end of each term or yearly the cost is

(Continued on page 352)

THE PURSUIT OF THE

Some advice on care of plants for the classroom gardener, from W. E. Shewell-Cooper, M.B.E.

ON the whole the French are far more plant conscious than we are. There is hardly a room in Paris which is not growing some kind of plant and, generally speaking, the evergreens are more popular than flowering specimens. We, on the other hand, go in far more for the primulas, cinerarias and the like, which last only a few weeks and have to be replaced.

Last winter I visited the glasshouse nurserymen in the environs of Paris and discovered that one person in three in this capital buys a pot plant every year. There is a tremendous trade in sansevierias, for instance, as well as in maidenhair ferns, the nephrolepis, the hart's-tongue gasteria, the Norfolk Island pine and the rubber plant (*Ficus elastica*). It would be far better in a school to have a collection of plants than to stick to the common aspidistra. The latter, it is true, will withstand any abuse or neglect, but it is by no means exciting, except, perhaps, when one first discovers the little group of brownish purple bells which are the flowers. These are produced only just above the soil and at the base of the leaves

If you plan to allow the plants to change from one form to another—which is the correct method—then it is a good idea to see that each class has the care of one particular type of plant for about a month, and to pass it on to the next form in perfect condition. This means that everyone will have to have some general knowledge as to the care of plants as a whole. There is probably nothing better than the ordinary clay pot to hold the soil and the roots, though latterly there have been advertised and sold rubber pots which may have some attraction to a school. I have not, as yet, grown a series of plants in these new pots and so can only report on them from hearsay.

Clay pots must be kept clean or otherwise they are apt to grow moss, while green scum may form on the exterior. Sometimes a white mould appears. It is not difficult to take a soft scrubbing-brush and go over them with a little water from time to time. In bad cases I have known it necessary to put just a little ammonia in the water and then the scum is removed without difficulty. Experiments have shown that for the school there is a lot to be said for the glazed pot because it does not give off so much moisture and so the tiny root hairs near the pot itself do not suffer from lack of moisture.

Make certain that the young people understand the importance of using the compost devised by the John Innes Horticultural Research Station. The main one is the John Innes Potting Compost, and details of this will be found in the book, "The A B C of the Greenhouse," published by The English Universities Press. The John Innes Composts are properly balanced, they contain all the necessary plant foods, and they ensure that the specimens will grow perfectly. Schools that have not the facilities for making up these composts will be glad to know that they can buy them already prepared from some of the best known horticultural sundriesmen.

The problem of the classroom is, of course, that it is apt to be rather hot during the day and somewhat cold at night time, though with the centrally-heated school there is not, perhaps, the same difficulty, except that boys are notorious in leaving class-room doors open! All the plant really requires is a temperature of about 60 deg. F. This can go up to 70 owing to some heat during the day, but should never go down below, say, 53 at night time.

Light is just as important as heat and many plants have suffered through being kept in a dark spot in the room, and so have grown puny and weak, owing to lack of sunlight. The ferns and rubber plants are not so particular because they are used to shade. Some schools get over this problem by seeing that the plants have electric light, and the special lamps are often used to stimulate the growth of oxygenating plants in an aquarium. I have known plants in rather dull sunless rooms do quite well because they were artificially illuminated at night time with the 100 watt bulbs. As a matter of fact there is a lot of experimental work going on at the present time on the subject.

Next we have to face the problem of watering; most young people have an idea that plants need to be kept over-moist. This is not true, of course. It is fatal to put a pot in a saucer of water, for instance, and so have its roots growing in a water-logged medium. If the atmosphere of the classroom is dry, then there may be more transpiration and in consequence more watering will have to be done. Plants in glazed containers need less water than those in the clay pots. Gardeners learn to know whether plants need water or not by using wooden

POTTED PLANT

tappers. If the pot makes a high-pitched sound, then the soil is dry. If the noise is dull and deep, then there is undoubtedly sufficient water present.

When you do water, water well. In the case of the large plants the simplest method is to plunge the pot into a bucket of water about once a week. You do not have to water the cacti and succulent plants as much as those with the normal types of foliage.

Feeding ofen raises a number of queries. It is best to use one of the properly prepared liquid plant foods sold under proprietory names. They contain the right amount of nitrogen, phosphates and potash, and can be applied occasionally. Most foliage plants only need three feedings a year and cacti will generally go on for years in the special compost that has been provided for them.

Let us choose a number of plants which might be included in any school collection and give one or two hints about each one. There is the *Sansevieria zeylanica* to which I have already referred. It is sometimes called the snake plant or the bowstring hemp. It is easy to grow, does well with little care, and with little sun for that matter. Few people realise that it has flowers and these, though not important, do appear in August. The potting can be done at any time, while it can easily be propagated by cuttings made of leaves severed into three-inch lengths and planted in sand in the spring. *Sansevieria thyrsiflora* has wider leaves banded with yellow.

The shrimp plant (*Beloperone guttata*) flowers in the summer but most people like the leaves which are 2½ inches long and oval. This likes plenty of sunlight and moisture. The rubber plant (*Ficus elastica*) is, on the other hand, easy to grow and is usually potted up in May. *Ficus pandurata* (it is sometimes known as the fiddle-leaved plant) is more attractive and grows more compactly. It does best when it is root-bound, but under such conditions it has to be watered three times a week and liquid food must be given once a fortnight. The Norfolk Island pine is an evergreen whose branches grow in tiers. Its Latin name is *Araucaria excelsa* and all it asks for is very moderate watering, lots of sun and plenty of air. It will need a feed of liquid food once a month. Of the ferns, *Nephrolepis exalpata* is probably the longest-lived under school conditions. If you must grow the bird's-nest fern the liquid must be given once a week and the plant ought to be syringed over twice a week at least, because it does not thrive in a dry atmosphere.

and a book for the enthusiast by C. R. Boutard

Plants Indoors: How to Grow and Arrange Them. *(Putnam. 18s.)*

THERE will always be acorns growing in small jars on classroom window-sills, we hope, and bulbs, and local wild flowers displayed. Much of the charm of the plants and flowers displayed in schools lies in their complete lack of sophistication. Mr. Boutard's attractive book deals largely with the plants becoming fashionable to-day among the sophisticated. They are those attractive climbers and pot-plants to be seen in the elegant rooms illustrated in the glossier magazines; they grace the contemporary rooms at exhibitions, and the slicker travel and information bureaux in London have fallen for them in a big way. Such plants are no less interesting or attractive for being fashionable. They are coming into fashion because they have been found, in the Scandinavian countries particularly, to be so suitable for contemporary room conditions. These are not "new" plants; they are plants rediscovered, mostly when the search began for plants suitable for centrally-heated rooms and rooms where there are good windows, calling out for something more fluid in line and more vivacious than a cactus or two. In short, here are plants eminently suitable for the decoration of many of to-day's classrooms.

Information about vines, ivies, philodendrons, sansevierias and other of the room and classroom plants seen in increasing numbers to-day has been scattered fairly freely about the gardening and general home-interest magazines; *School and College Management* published an article by Mr. Boutard last year. But all this information has not appeared so conveniently, so clearly and so encouragingly between the covers of a book before. Mr. Boutard's book is timely, authoritative and will greatly interest any school that was stimulated by his article into trying some of the newer house-plants. He opens up delightful vistas beyond the odd hyacinth growing in a pot and he will endear himself even to the less sophisticated teacher—he is all for growing orange, lemon and grapefruit pips. He can even tell her something she probably doesn't know. "If you are ambitious enough to attempt a coconut you will almost certainly fail because only one in 200 of these seeds germinates." A timely, scholarly and understanding book, not without humour.

L. B.

negligible and the saving of expense in repairing mattresses or mattress-covers and sheets is considerable.

* * *

Linoleum which has become worn or torn by a faulty castor should be replaced by a patch which extends well beyond the actual torn part. Gluing such a repair is often better than nailing the linoleum, but the patch should be well weighted down after treatment to ensure firm adhesion.

Loose or damaged floor boarding may mean a job of work for the handyman or the joiner. What lies beneath the loose boards may be nothing which matters, but it may be a pipe or wires.

* * *

Many old houses have beautiful fireplaces, and though a once famous drawing room has now become a dormitory the fireplace is still a much appreciated treasure.

Chimneys and firegrates require regular checking even if the only fires lighted therein are those which warm the rooms before the return to school after Christmas holidays! Many can tell of a room or tower haunted by nothing more dangerous than nesting birds. But fearful they can appear if they make a frightened sooty swoop through a room after falling down the great chimney. A wire grid defeats these house-building efforts, but the wire needs renewing at times, and the grid may need clearing of leaves and twigs and maybe a nest. And the chimney needs sweeping occasionally! Some fireplaces were boarded up during the war years and many a danger averted by such a precaution. But it is a pity to hide beauty, and one feels one should do much planning and arranging of furniture if by so doing one can avoid diminishing the effect of a lovely feature in a room. The supreme argument for an open grate is that along with open windows it does much to keep the atmosphere of a room sweet and fresh.

Cracks in plaster, damp patches through faulty window sashes or other reasons, need prompt attention if major repairs are to be avoided. Attics and cellars need overhauling and lime-washing; dark passages and stairs must be watched for efficient lighting and the unexpected steps must be safeguarded for the unwary or careless. There is much satisfaction in feeling that one can add much to the smooth running of an establishment by taking pains over the details (often humdrum) of everyday life—and, after all, that is the secret of all success.

* * *

The sewing room is a busy place during the holidays, and particularly so at the beginning of a new school year when new names appear on house lists and clothing and later become associated with a member of the big family.

A member of a junior house may arrive conscious of all manner of rules and regulations from his prep. school. The matron can help by explaining any rules peculiar to the new school. The sewing room must check the articles of wearing apparel and towels and make quite sure all are marked. It is not enough to label one sock of a pair or omit to mark towels because they are of an outstanding colour or size. Handkerchiefs should be labelled or marked on the border, shirts on the middle of the neckband, towels on the border, and all name tapes or marking should be obvious to those who check at school and to the laundry checkers. Shoes should have a name printed inside each shoe, or even a name tape glued on to the lining of a shoe. Sports clothes if acquired at school should be taken to the sewing room for marking, and any new garments acquired during term should also be marked. It is helpful if extra name tapes can be made available for such emergencies.

* * *

Many sewing rooms, where repairs and pressing are done on a large scale, will be glad to know of the "Flexaway" (a flex carrier for ironing boards), which can be bought for 11s. (including purchase tax). It is a metal arm on to which the flex is hooked and is a real boon, preventing dragging or tangling of the flex. It is fixed in a minute, and can be folded away with the ironing board.

America's health museum

(continued from page 341)

can learn the story of birth, and expectant mothers can be taught how to prepare for their young ones, too.

At one end of the dental room, the "transparent tooth" gleams as it shows in detail the anatomy of the average tooth. Three heads, operated by a crank, show the proper way to brush the teeth. Turning another crank will show how and when baby's teeth will erupt in the mouth. Pushing a button will show what happens when one tooth is lost.

One of the most popular exhibits is the famous "Transparent Man." This fascinating, life-size model possesses a transparent skin, through which the skeletal structure, shape, position of the organs, circulatory and nervous systems are clearly visible.

BOOK REVIEWS

Housecraft Science

By J. M. Holt.
(G. Bell & Sons, Ltd. 6s.)

THE many students who will use and study "Housecraft Science" will find that, in addition to giving advice on every aspect of work relating to household matters and domestic science, the book is also something of a sociological chronicle.

The important contribution women have made to industry and the professions has made imperative a new and enlightened approach to household life and management. Modern machinery has done much to help the domestic situation and in industrial life has revolutionised work in many spheres. When new housing schemes demanded space and invaded the countryside, new transport facilities linked up town and rural districts, carrying workers of both sexes to new and old work. Educational schemes extended the scope of further education and created new careers for men and women. Research and invention made possible new ways of conducting industries and promoted new schemes of work. The challenge of competition and the stimulus of fresh effort made urgent the need for specialisation in all types and manners of work.

Women have a great capacity for adaptability and their attention to detail in work has made them quick to learn. Emancipation from the one-time drudgery of domestic life was overdue. The new labour-saving devices and equipment in the homes have not only made domestic life easier in a time when domestic labour is scarce and expensive, but enable many women to continue working and maintain and care for their homes without undue strain. One must also emphasise the important fact that vital industry has been greatly helped in its competition for the world's markets by the aid given by women workers.

The illustrations in "Housecraft Science" are excellent and detailed, and very clearly and worthily augment the written word. All matters relating to a house and household are discussed in this book, including the ideal type of situation for, and construction of, a house. The various methods of caring

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for and cleaning the contents of each room are given. The types of fabrics used for the many purposes of furnishings — floor-coverings, window curtaining, bedding, upholstery—and the methods of using and caring for them are given studied care.

Consideration is given to the several ways of heating a house and cooking for the household, and gas, electricity, coal, slow-combustion heat, etc., are discussed with due regard to their service and any special advantages or otherwise in their use. The safety measures to observe in each and all cases are specially emphasised.

The chapter on foodstuffs is simply and effectively written, and the wise cooking of food, with its illustrations (word and picture) of such varied methods as hay box and pressure cooking, are cited.

Household appliances—the use of cleaning materials, the care of rooms and their contents, general and personal cleanliness—are discussed in helpful detail. The book ends with chapters on physiology and personal hygiene. The last paragraph (as also the opening one) is indicative of the quality of writing and the ideal proclaimed in this book: "The laws of health whether applied to the person or the home are the weapons by which the good citizen is enabled to fight disease with its accompanying miseries. Much has been accomplished in the last few years by legislation and education; with the help of an enlightened community there are even greater possibilities for the future." To this all would subscribe!

Co-ordinate Geometry

By C. O. Tuckey and W. Armistead. (Longmans. 12s. 6d.)

THE first six chapters of this book contain many unusual features. The underlying idea of the work is that co-ordinate geometry is a tool that can be applied to the study of curves other than the conic sections, and that by such an extension some of the artificial barriers between branches of mathematics can be broken down.

The subject is presented not as a new branch of mathematics but as a continuation of a subject which the student has met before in the graphical work in algebra, trigonometry and perhaps the calculus. After dealing with points and lines, the tool is applied to the study of familiar curves defined by their equations:—

$$y = x^2 \text{ and } y = 1/x$$

The equation of the circle is obtained and that of the ellipse derived from it by reducing the ordinates. Many of the important properties of the conics and a good grounding in the methods of co-ordinate geometry are obtained before the central conics have been defined by the focus directive property. This definition is given in the fourth chapter and by the end of this chapter all the work on central conics required for the G.C.E. A and S levels in science and A level in mathematics has been covered.

The most notable chapters are the fifth and sixth. Here the method is extended to the study of curves usually met with in textbooks on algebra, trigonometry, calculus and solid geometry, namely the cubic, semi-cubic and the rational fractions; the curves of the trigonometrical, exponential and logarithmic functions; the limacon, cardioid, cycloid and spirals. In solid geometry, lines, planes and the solids of revolution are investigated.

The last six chapters are devoted to the study of conics in general, extending the work to scholarship level and cover the general equation of the second degree. systems of conics, homogeneous co-ordinates and transformations, treating adequately projective geometry, inversion, involution and reciprocation.

The approach to this work has been facilitated by an early explanation and frequent use of three row determinants from the beginning of the book, by the insistence of the use of parameters and by making oblique axes and polar co-ordinates an integral part of the work, using them whenever their use leads to simplification.

The text is supported by clear and exceptionally well-reproduced figures and by sets of well-chosen examples often with hints as to the best method of solution.

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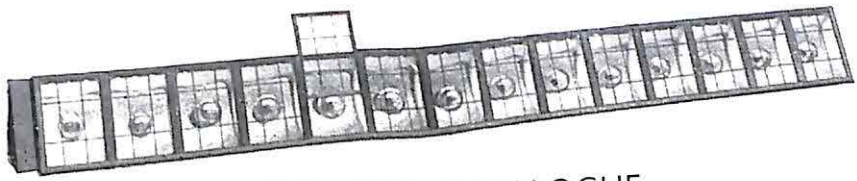

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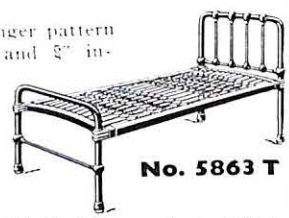

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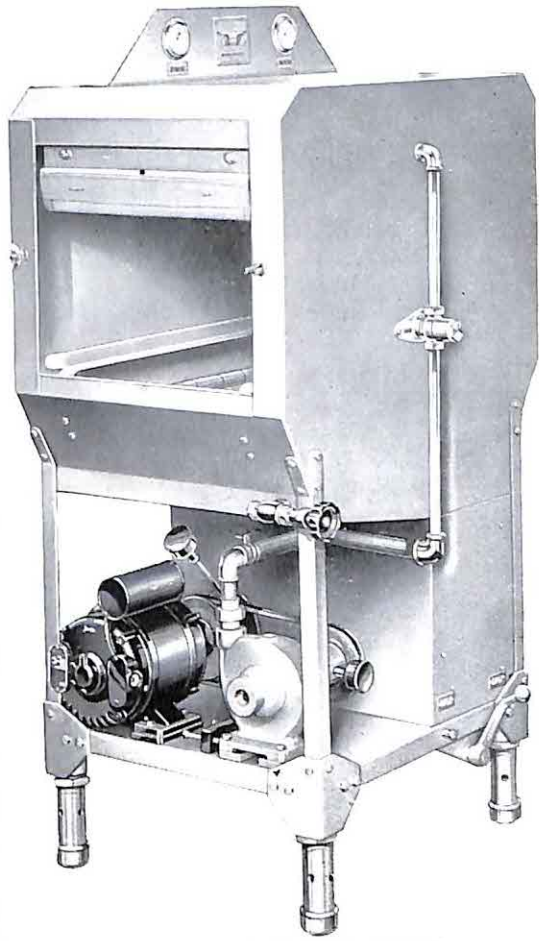

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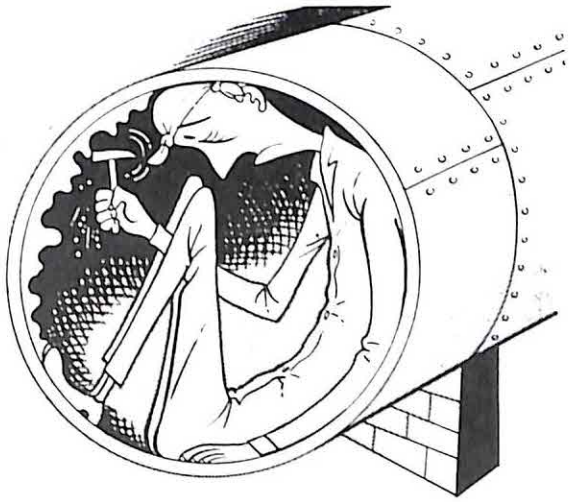

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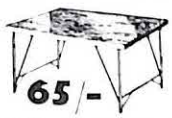

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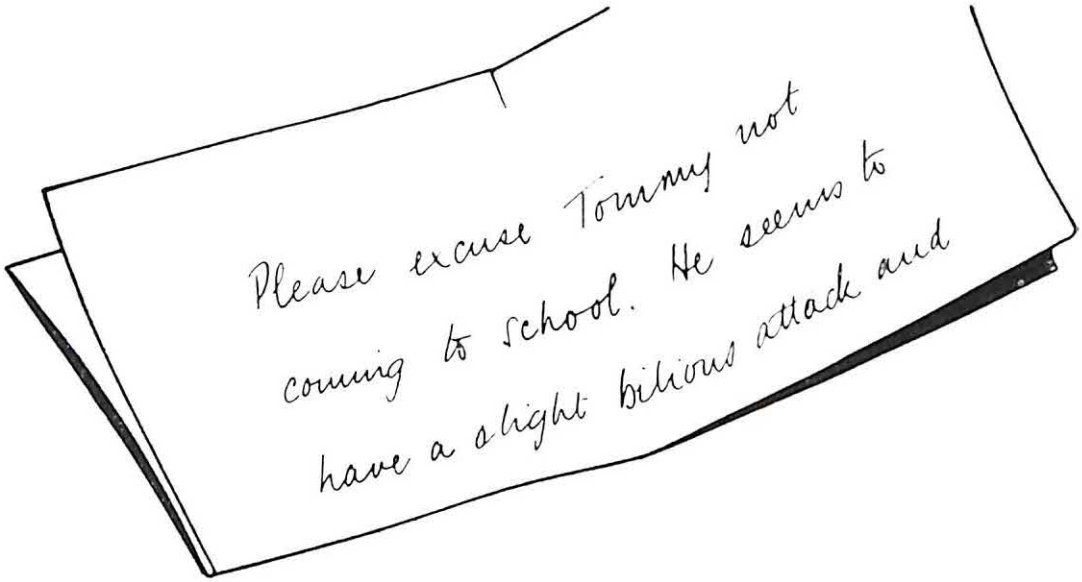

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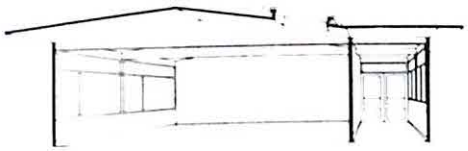

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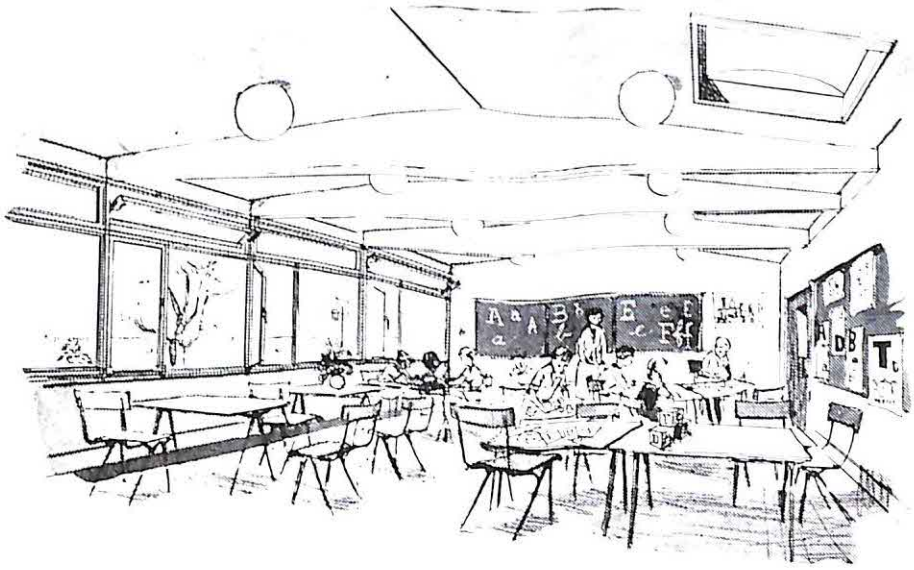

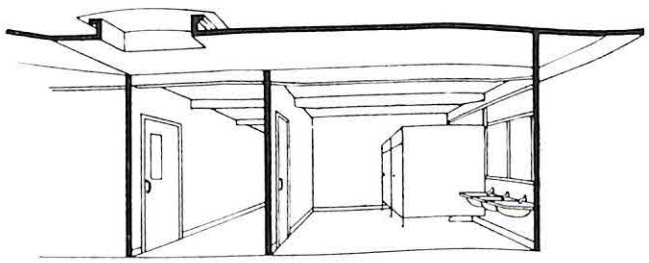

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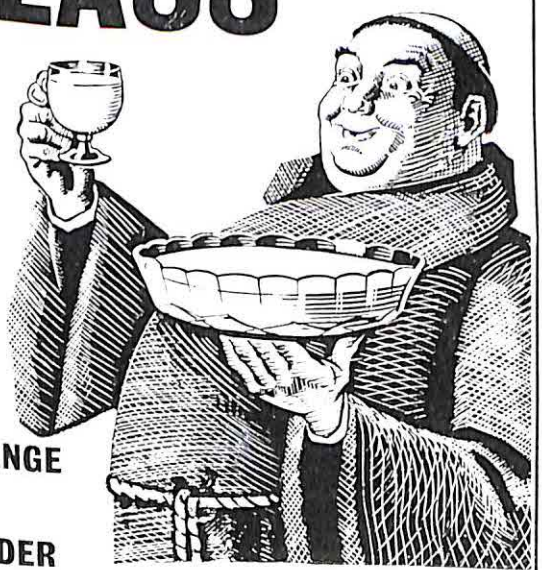

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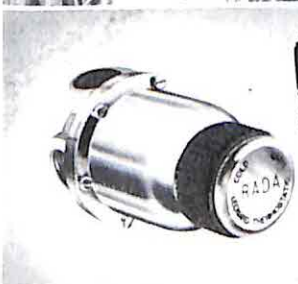

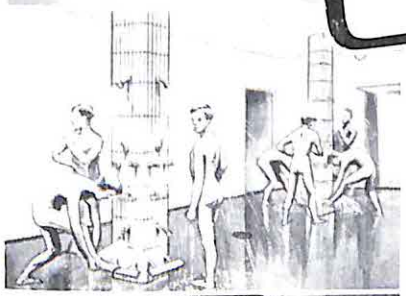

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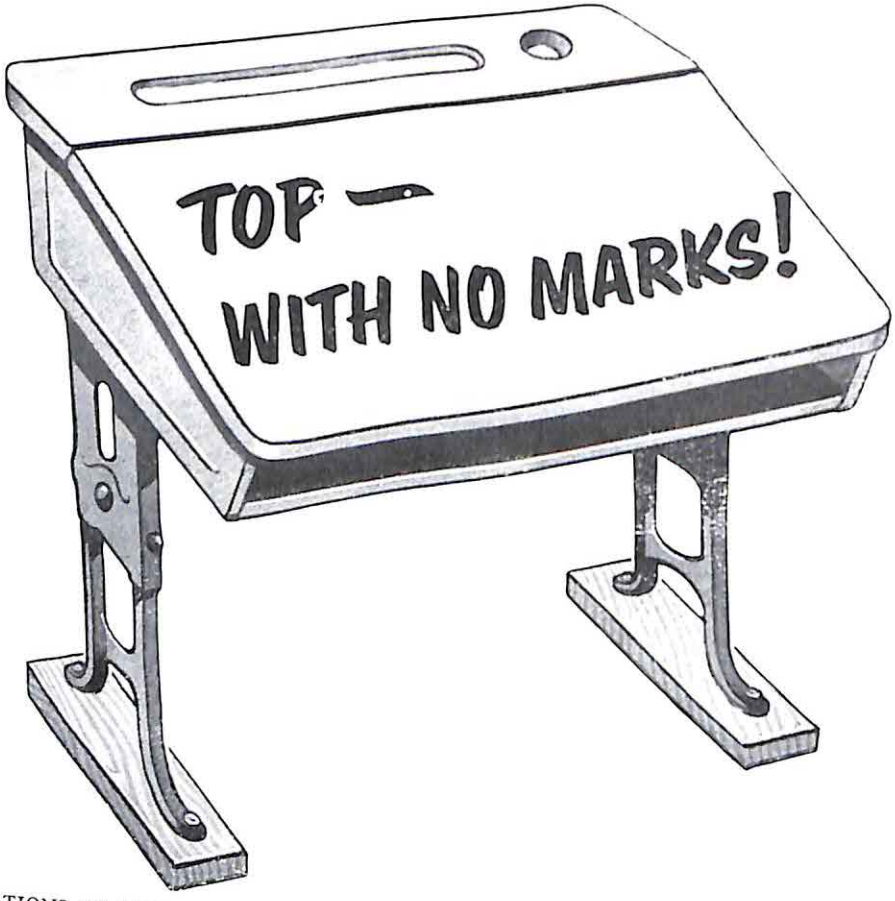

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SCHOOL & COLLEGE MANAGEMENT

Contents

People and Events 371

Time-tables — Don't plan them unless you have to, says one Headmaster, but if you must here are some basic rules 372

Schooling Means More than Scholarship — at these two widely contrasted schools 375

Glass in Schools — can play an important part in new building if you choose the right materials 377

Controlling Daylight — Peter K. Dodds describes the new function of the venetian blind in contemporary decors 381

When the Child Sues for Damages — These are some of the factors that constitute negligence, quoted from court cases by C. L. Berry . 383

The Purpose of Health Records — or one of them — is to provide statistics for the future, says Dr. R. E. Smith 386

Planning the Winter Menu — Professor V. H. Mottram advises on combining schoolboy appetites with calory needs 389

Teaching Home Economics — has been the subject of an Edinburgh International Conference reported here by Doreen Davies . . 391

Teaching Domestic Science in School — Elizabeth Midgley suggests some ways of combining child labour with child instruction 392

Garden Maintenance Equipment — W. E. Shewell-Cooper, M.B.E., gives a guide to the tools groundsmen will need 394

Text Book Reviews 396

Vol. 13 *No. 9* *September, 1953*

"Now I find it cheaper and easier to serve a choice of soups instead of only one"

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PEOPLE and events

MR. KURT HAHN, the headmaster of Gourdonstoun School, where the Duke of Edinburgh was educated, has recently resigned. The school is on the shores of the Moray Firth. The Duke was a pupil there from September, 1934, to early 1939.

Two joint headmasters have been appointed, Mr. H. L. Brereton and Mr. F. R. G. Chew. Both Mr. Brereton and Mr. Chew have been associated with Mr. Kurt Hahn and his work for some time.

In November it is likely that Mr. Hahn's work for education will be recognised by the conferring upon him of an honorary degree.

* * *

Lincoln Girls' High School have hit upon a unique method of celebrating their diamond jubilee. The Old Girls' Association plans to buy a suitable house in the town and convert it into flats for elderly people who have been associated with the school. The flats are to be let at a reasonable rent and allotted primarily to those of limited means.

It is estimated that eight thousand pounds will be necessary and the Old Girls' Association are making every endeavour to raise this sum.

* * *

A Portrait of Shrewsbury School—photographs taken by Mr. Adolf Morath—is a recently published book. (Wilding and Son, Shrewsbury. 30s.) We can think of no better way of capturing the atmosphere and spirit of a school than to invite a photographer of Mr. Morath's calibre to make a study such as this. There can be, too, no better leaving present or prize for a pupil than such a book.

* * *

Dr. D. H. Hibbert, director of the Ministry of Education, Sudan Government, Khartoum, will take up the headmastership of Portsmouth Grammar School in January. He succeeds Mr. D. D. Lindsay.

* * *

Miss Parke-Davis, of Cheltenham Ladies' College, is to be the principal of Evendene Court School for Household Training, Colwall, Malvern.

* * *

The death was announced, early in August, of Miss Beatrice M. Sparks who was for many years principal of Cheltenham Ladies' College.

* * *

Thirty-three years ago Mr. A. O. Jones came to Birkenhead Institute as a master. He has recently been appointed headmaster of the school he has served so long and so well.

* * *

The biology master at Keswick School, Mr. O. B. Rigby, will be taking up his appointment as headmaster of Chumleigh Secondary Modern School, North Devon.

* * *

The report of the Outward Bound Trust for the year ending December 31, 1953, states that, during the year, 999 boys took the courses at the Sea School at Aberdovey. The Trust recently acquired the freehold of the property previously let to the Sea School.

* * *

Dr. Terry Thomas is to retire at the end of this term, relinquishing the headmastership of Leeds Grammar School, a post he has held for thirty-one years. His successor will be Mr. T. G. C. Woodford, headmaster of Richmond Grammar School, Yorkshire.

* * *

This term Mr. Roger Malden succeeds his father, Mr. Christopher Malden as headmaster of Windlesham House High School, Washington, Sussex. The school was founded in 1837, at Brighton, by a Lieutenant C. R. Malden, R.N. The headmastership of the school has been in the Malden family ever since. A record?

continuing

TIME-TABLES

two periods allotted to a subject these should be well spaced. One can spend hours concocting a time table and then find that some form has both its (only) two Geography periods on the same day, or that another is doing four Mathematical periods in succession. Again, the preps, which one generally fills in last and with an almost gay abandon if the rest of the task seems adequately accomplished, are not as simple as they may appear. Some masters prefer a preparation period *before* a lesson, others prefer it *after* the lesson. One cannot please them all, but it is worth while to discover before one starts which of the staff want double periods (if any) and when they prefer to set their preparations.

Fixing free periods

Another thing to bear in mind is that a free period may be very valuable to a Science teacher *before* his lesson so that he can set up apparatus. Speaking of free periods, it is important, I think, to ensure that every member of the teaching staff has his fair share of these. No one should grudge a conscientious teacher his free periods, and it is also well worth while to arrange these so far as is possible to suit his convenience and give him the greatest advantage. This is particularly so in a boarding school, where so many men never get a half-holiday unless it is arranged for them on a full school day. Masters who are in charge of school games, for instance, may have every Wednesday and Saturday occupied with coaching or matches. In many schools such a half-day is recognised as the privilege of house masters, and I personally think that it should be arranged for as many of the staff as possible. This is especially so in a small school (though admittedly it is more difficult to arrange), where out-of-school duties, games, supervision, etc., fall more heavily.

Wanted: a time-table machine

Trying to bear all these things in mind, one now faces the blank time table sheet and fills in first the "immovables." Then the fun (if you enjoy this sort of thing) begins. My own method, which leads often enough to raving despair and scarcely ever to a good time-table, is to proceed by trial and error. This I do not recommend unless you are so gifted that you spot all the errors before you think you have successfully completed the job. I have never understood why no one has invented, built and marketed a time-table machine. I had a master once who produced a wooden contraption, a sort of board with slots, one across for each form, on to which one fitted blocks coloured and numbered to represent subject and teacher. I naturally gave him the time-table to do, with happy results. Now he has gone, and taken his contraption with him. I know a headmistress who proceeds to a successful conclusion by means of coloured drawing pins. However you proceed, it is essential to provide that no two classes are in the same place at the same time unless it is your intention to double them up for some specific purpose; that no one teacher is teaching two classes simultaneously in two different places; that no class is at the same time in two places studying two different subjects, even with two separate teachers in charge. All this of course is elementary, but even seasoned time-table concocters will admit the dangers.

The only real answer I have found is to engage on your staff a master (probably he will be a mathematician) who finds the same innocent pleasure in concocting a time table that you and I find in solving crossword puzzles; hand the whole thing over to him at the end of July and forget all about it until September! He will enjoy his holiday, and so will you.

Our front cover: *on the opposite page we tell the story of two widely differing schools with an appreciation for craftsmanship in common. The work of the Secondary Modern School was illustrated on last month's cover. This month we show a woodcut by one of Endersleigh's pupils—Anne Wilkins—used in the school magazine.*

two schools who teach that

Schooling means more than Scholarship

★ and plan their curricula to encourage craftswork

ENDERSLEIGH SCHOOL, set in pleasant Essex countryside, is a far cry from Leo Secondary School, in South-east London. The pupils of a co-educational private school incorporating kindergarten, preparatory and secondary schools seem far removed, too, from the boys of a Central London Secondary Modern. Yet these two schools have an important educational principle in common—both have the guiding rule that schooling is more than scholarship, and a means of developing every talent that a child has.

Both schools achieve this by encouraging arts and crafts, school clubs and "projects." Endersleigh, founded in its present form eight years ago by Mr. and Mrs. James Williams, the Headmaster and Head Mistress, was this year created a Charitable Trust with one of its aims "to advance in any manner the cause of education, whether general, professional or *technical*" (our italics). That these aims are being achieved is obvious not only from the large number of examination passes but also from the high standard of craftsmanship in the woodwork, metalwork and art classes, and by the enthusiasm with which the many out-of-school clubs and societies are run.

One of the most popular school clubs is, perhaps surprisingly, the Geography Society. The word "geography" conjures up the atlas and the textbook of indigestible facts and figures, but the society brings maps and books to life by showing films on places as far apart as the Tennessee Valley, U.S.A., and the Cook Islands in the Pacific, interspersed with talks on subjects from hop-picking in Kent to the Canary Islands. This society must be invaluable in stimulating enthusiasm for geography lessons.

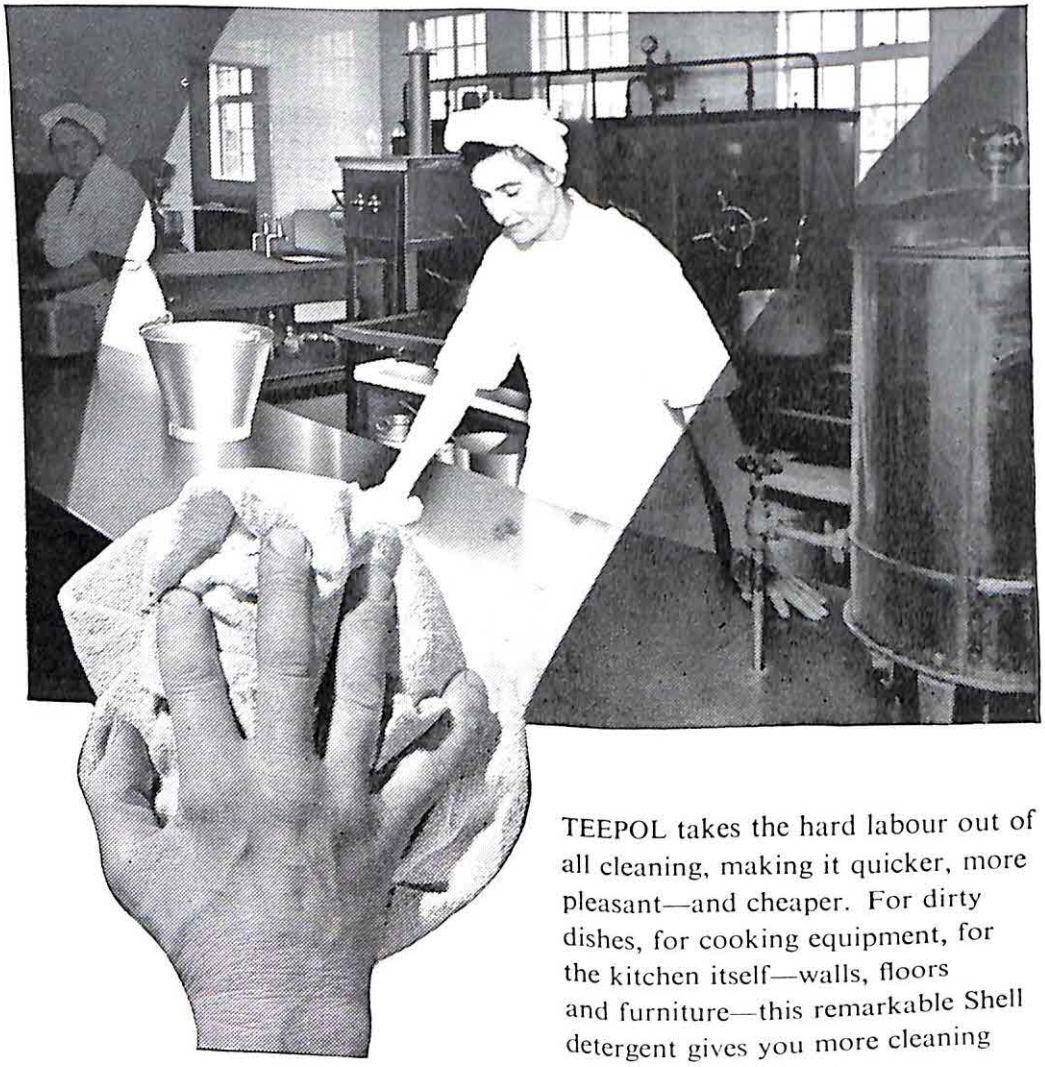
Organised school holidays are, of course, a common feature of most schools nowadays, but Endersleigh pupils had the idea of forming their own Holiday Club with the objects of "encouraging members of the school to travel by their own initiative during holidays" and "planning such expeditions during the winter months." Other flourishing clubs are the Stamp Club, the Film Club and the Dramatic Society.

To counteract any parochial influence in their societies, Endersleigh Sixth Form join with other local schools for Sixth Form discussion groups; in a wider field the school has an exchange scheme with a French school.

Leo Secondary School is composed of very different material—the pupils are boys between the ages of 11 and 15—yet the results are surprisingly similar. Here again the Headmaster, Mr. C. B. Croft, believes firmly that every child has some gift that can be developed and that even the most backward scholar may shine in crafts or art. His theory has been magnificently proved by the quite outstanding achievement of the school in building a 15 ft. sloop: the entire boat, with the exception of the sails, was designed and built in the school workshops—even to metal castings. An undertaking of this kind would be commendable in any circumstances, but when it was done by boys who, for the most part, had never sailed before and had spent most of their lives in the less prosperous districts of London, it is indeed impressive. Our front cover last month illustrated the boat sailing on the Thames

(continued on page 398)

Low-cost cleaning for **Kitchens**



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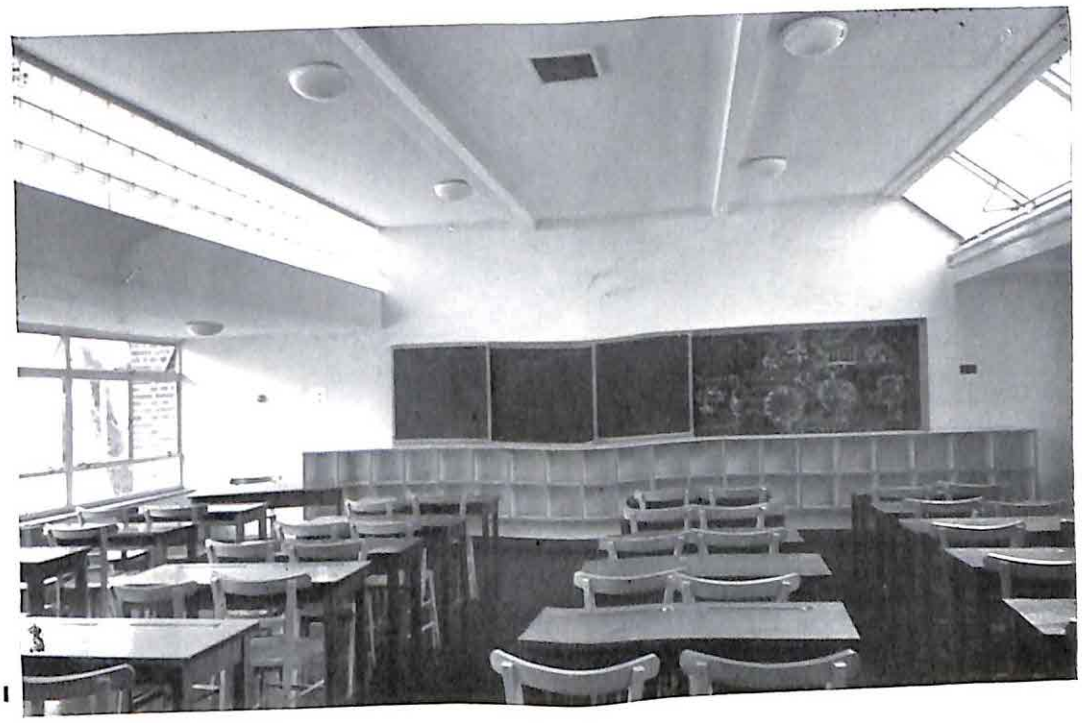
GLASS *in schools*



Schools planning alterations to existing buildings too often think that contemporary building methods of achieving maximum daylight are beyond their means. But it is judicious rather than generous use of glass that produces results. There are many different types of glass, all with different functions: this article suggests how some of them can be used in school buildings.

THE traditional function of glass—to allow enclosed space to be illuminated by daylight—is of more than usual importance in schools. A recent report on the Lighting of Buildings published for the Ministry of Works* prefaced its section on Lighting in Schools by saying: "Special importance should be attached to lighting in schools. The eye of the child is a growing eye, and more susceptible to damage from deficiencies of lighting than mature eyes. Unsuitable and inadequate lighting may leave its mark on any child, affecting his comfort, efficiency and earning powers throughout his life . . ."

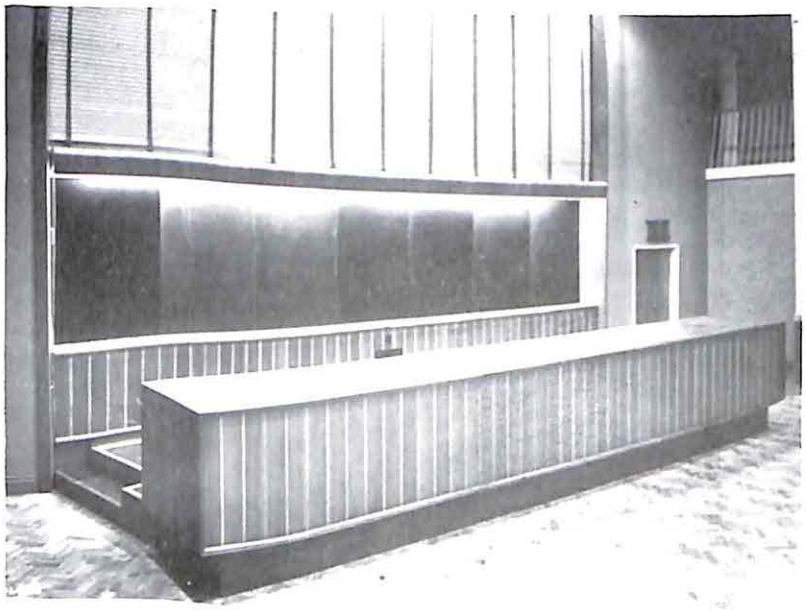
The report followed these observations by strong recommendations on the standards of daylighting desirable in schools. Most important of these concerns the quality of daylight. This is expressed as the "daylight factor," a percentage of the total light available out of doors from an unobstructed sky, measured at a desk level of 2 ft. 9 in. from the floor. The report recommends that this daylight factor over the entire working area of the room should never fall below five per cent in a classroom used for ordinary teaching work. In art rooms, laboratories and work rooms an even higher minimum standard of about 10 per cent was recommended.

It is the placing and size of windows in a school building as well as the transmission properties of the window glass that determine this quality of daylight in classrooms. The following examples illustrate what these daylight factors mean in terms of

* Post-War Building Studies No. 12. "The Lighting of Buildings" by Lighting Committee of the Building Research Board of the Department of Scientific and Industrial Research, 1944. H.M. Stationery Office, price 2s. 6d.

continuing

GLASS IN SCHOOLS



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window patterns. A classroom built in 1850 during the Gothic revival, with three deep-set windows adorned with tracery, will have a daylight factor varying from about 4 per cent near the windows to 0.5 per cent near the further wall. A modern classroom with a fully glazed external wall has a daylight factor varying from about 15 per cent down to 2 per cent. Although the deep-set windows of the Victorian classroom may reduce glare for pupils near the windows and the whole lighting may appear quite pleasant, it is nevertheless very low in value compared with modern schools. But even with the maximum area of one wall glazed it is not normally possible to get a daylight factor of 5 per cent at the far end of the room. To achieve the desired result some form of clerestory lighting is used in the case of single storey or top storey classrooms.

Clerestory lighting can take the form of a long, narrow strip of horizontal window running above the corridor on the opposite side from the window wall. The angles are such, however, that this arrangement benefits little the desks nearest the corridor wall. Borrowed light from an enclosed corridor is seldom satisfactory as it leads to cross-shadowing, and only the lower half of the window is of any use. The best solutions are, undoubtedly, a high clerestory above an open corridor, or a roof designed to permit clerestory lighting either in a side lantern or by providing clerestories in the roof on both sides of the room. The fitting of hoods and vertical louvres to side windows will serve to reduce sky glare for all children near the window without affecting the penetration of light into the room.

In multi-storey schools, the majority of which are limited to daylight from one side only plus borrowed light from corridors, the desirable lighting standards will have to be obtained by the addition of artificial lighting, unless the rooms are narrow in depth and the ceiling more than the usual 11 feet in height.

A very recent report of the Select Committee on Estimates in Schools suggested that perhaps too much glass was being used in schools, and called for vigilance in exercising economies without prejudice to the eyesight of the children. In this connection it is important to point out that where the "window wall" is fitted, it is much more important that the window should reach almost to the ceiling than to the floor. It is the height of the window that gives penetration, and a window that runs only down to the working level will prevent any possibility of the children being distracted by what is going on outside.

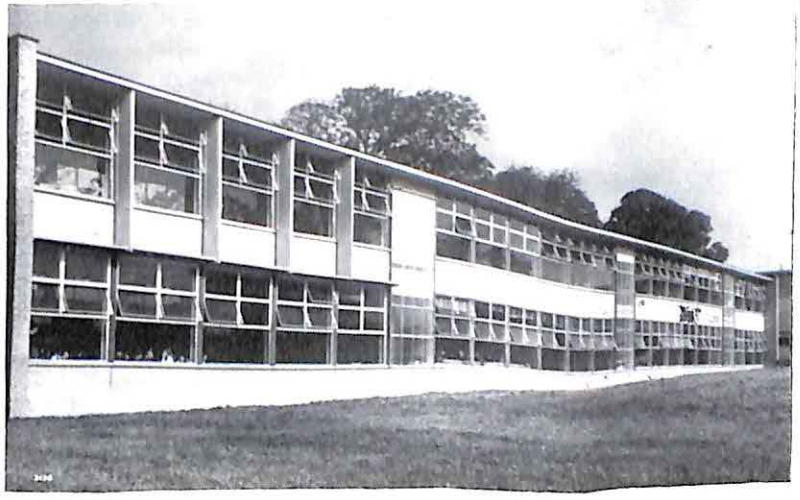
Glass is to-day used as a structural material in its own right, as well as providing a means of capturing daylight. In practically all modern school buildings the roof and floor loads are supported on a frame and the wall, instead of being a supporting element, is just a weather-excluding skin. Glass is fully capable of fulfilling this function. In considering the role of glass in schools, both structural and daylight functions must be borne in mind.

For all windows where clear, undistorted vision is required, such as the larger window walls in classrooms and laboratories, polished plate glass which has been ground and polished on both sides should be used. Where a smaller window is required for internal and observation purposes or where undistorted vision is not so important,

ordinary sheet glass is quite suitable. Both types of glass can be used in clerestory lighting, but for this purpose glass blocks or one of the many translucent types known generally as Cathedral and Figures Rolled glasses would be equally suitable. The special texture or pattern of these diffuse the light and thus give the maximum internal distribution of the daylight admitted while reducing direct glare. Owing to their opaqueness, these types of glass are also widely used for partitions in cloakrooms and lavatories. When a completely even distribution of light is required the prismatic range of glasses should be fitted. Light passing through these glasses is refracted from the prisms on the inner surface and so can be directed to all parts of the room.

An extra margin of safety is provided by wired glass, a glass in which a square wire mesh is inserted during the process of rolling. In the event of breakage the wire holds the glass together and prevents serious fragmentation. These wired glasses, which are fire-resisting and may be either transparent or obscured, are ideal for door panels, service hatches, covered approaches, partitions, staircase lights and art room skylights. Other toughened glasses such as Armourplate, a polished plate glass toughened by a process of heating and sudden cooling, are used for door glazing and for windows in vulnerable positions, e.g., low sill windows in gymnasia and places where serious accidents might result from broken glass. The high mechanical strength of these glasses makes them resistant to impact and sudden temperature changes—they are thus useful for bench tops and hotplates. If they do break they disintegrate into tiny particles without the cutting edges of ordinary splintered glass.

Probably the main objection to wide expanses of glass in buildings is the inferior heat insulation they give and the consequent increase in the cost of heating. Much has been done to overcome this disadvantage. By fitting double glazing units adequate



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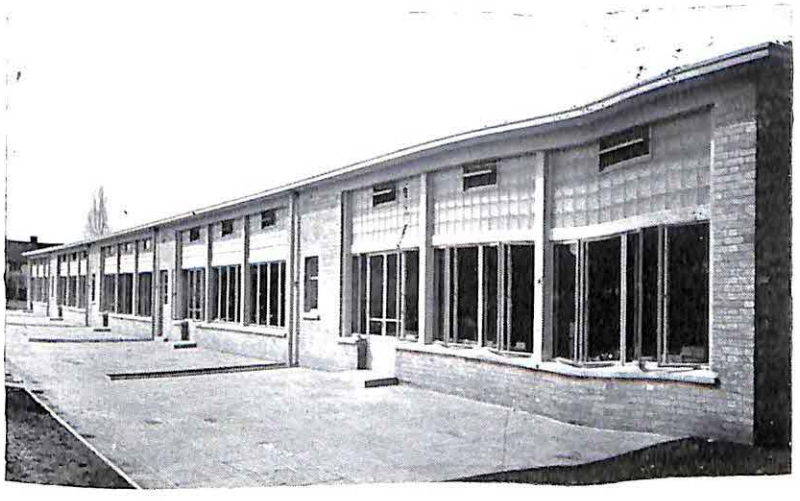

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1. St. Peter's County Primary School, Croydon. Natural lighting is given from two sides of the classroom by desk-level windows on the south side and slanted roof windows opposite. Insulight hollow glass blocks are used in the south clerestory to give a diffused, glareless light to the whole room.

2. Maths. and Geography Wing, Durham University. An acid treated 5·15 in. black Vitrolite blackboard in the main auditorium.

3. Walkern Secondary Modern School, Stevenage. The main classroom wing the lower panels are ¼ in. polished plate and the small windows sheet glass, giving the maximum light and ventilation to the rooms.

4. Stoke Bishop Primary School, Bristol. Each of the five classrooms has casement windows of polished plate glass with transom lights in Insulight hollow glass blocks. Additional ventilating windows are set in the transom lights

5. Primary School, Rock Ferry, Cheshire. Glass domes in the roof of this corridor give maximum diffused daylighting.

5

daylight can be secured without undue heat loss. The double glazing units are hermetically sealed window units composed of two panes of glass separated by a metal spacer and a cell of dehydrated air. Even higher degrees of insulation are possible with triple and quadruple glazing units.

Another interesting type of glass, widely used as a wall lining, is Vitrolite. This is a coloured opaque glass possessing a hard, brilliant surface which is unaffected by water, soap, grease, steam, damp and every acid except hydrofluoric. Wiping with a damp rag removes dirt and stains immediately. Vitrolite is ideal as a wall lining for cloakrooms, lavatories, science rooms and kitchens and can also be used for window-sills and table-tops.

Even the blackboard to-day can be made of glass—using either Vitrolite with a matt surface or polished plate glass painted black on the back surface and given a satin finish on the front. The Vitrolite board can be had in a wide variety of colours.

Among the most popular of the modern structural types of glass are the fire-resisting hollow glass blocks. These are laid in a somewhat similar fashion to ordinary bricks but are not designed to carry structural loads. They provide a diffused, uniform light which, combined with the high degree of privacy and efficient thermal and sound insulation, make them very suitable for clerestory lighting and for the walls in art and science rooms, in corridors, and for partitions and staircase lights.

Particularly suitable for corridors and areas where little window light is available, are the glass domes. Fitted in flat or barrel-roofed buildings and in the roofs of corridors, they allow diffused daylighting to be taken in through the roof. Armourlight lenses set in reinforced concrete provide another method of securing roof lighting in canopies and balconies.

All these glasses contribute in a very considerable measure to securing clean, healthy and well-lit surroundings. These are, moreover, not luxuries but basic requirements. It is, to say the least, sound economy that the maximum use should be made of natural daylight which is, after all, a free commodity.

The efficiency, comfort and health of both teacher and pupil depends to a great extent on the natural lighting of school buildings. No matter how good the planning, orientation and equipment may be, you cannot use modern building to best advantage if this vital fact is overlooked. The correct use of the types of glass now available can ensure that school lighting requirements are fully realised.

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continuing

Venetian Blinds

We have dealt with venetian blinds in summer, in winter, as a protection against draught, as an insulator, as a saver of electricity by bringing the light back into the room, as a protector of furnishings and fabrics throughout the year. There is one other point which is very important which I have not mentioned, and that is the use of venetian blinds as a decoration. More and more architects are making use of them in new buildings. A whole article could be written on this subject. But you will have seen them yourself as a background in shop windows, inside shop displays, etc. You may also have seen a variation which is called the two-way blind and is used in shops to stop deterioration of goods. This two-way blind can be raised from the window sills as well as lowered from the top. They are ideal for drawing offices, schools and public buildings.

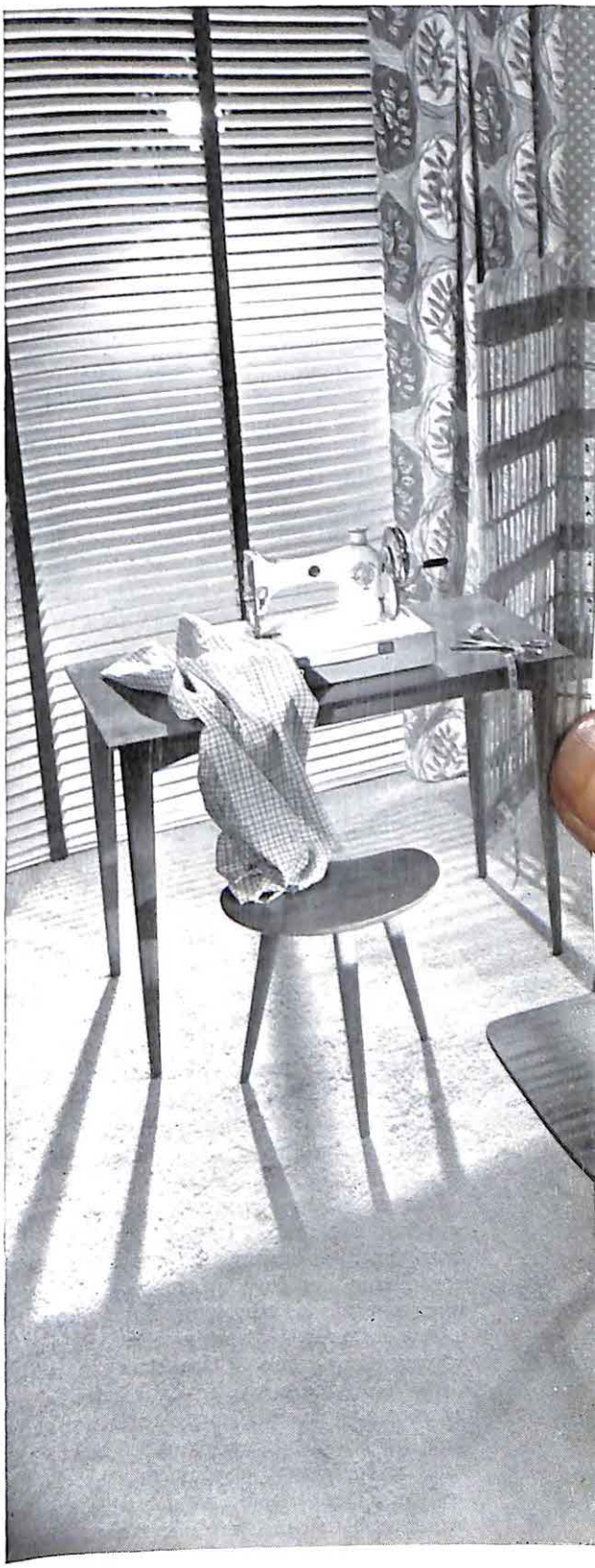
continuing **GLASS IN SCHOOLS**

Controlling Daylight

Contemporary furnishing ideas gave the venetian blind a new look and a new lease of life. Peter K. Dodds describes the many useful ways it can be used in classroom or common room.

THE designs for schools to-day usually provide for as much window space as possible so that the maximum of light and air can be admitted into the classroom, and even in older buildings, school windows are very often wide and tall. The venetian blind of to-day, now becoming so popular in every kind of building, might have been designed with the particular needs of schools in mind. Modern venetian blinds have indeed changed since their Edwardian ancestors which hung in every drawing-room. Once wooden, they are now made of featherweight aluminium alloy, available in a number of colours.

Anyone who has tried to read or write with the sun streaming through the window on to the page will know how trying to the eyes this can be. The alternative used to be to draw a curtain or lower a fabric blind and sit in stuffy semi-darkness. Now, the venetian blind can be used to deflect sunlight up to the ceiling or down to the floor by altering the vanes, and air can circulate as freely as before. In dormitories and sickrooms they soften any glare from the sun and shed a soft, mellow light in its place, thus helping to prevent eyestrain. The anodised aluminium slats are in attractive colours ranging from pastel blues and greens to the harder colours such as terra-cotta and yellow, and are curved in shape so that the rays of the sun or daylight can not only be brought into the room but deflected or kept out of the room. For example, should you have a patch of sunlight falling on a carpet, and serving no useful purpose but to fade it, by tilting the blind that sunlight can be thrown on to the ceiling, making the room bright and cheerful and eliminating direct glare.



There is never any need for the blind to be pulled up completely because in all weathers a satisfactory angle of tilt can be

(continued on next page)

found which will improve lighting in any room or office and, at the same time, add a panel of colour in the form of the coloured slats and the matching or contrasting coloured webbing which adorns the blind. One of the best positions is with the vanes quite open, giving perfect shade to the room but allowing a full view of the sunshine outside.

The advantages of venetian blinds for deflecting sunlight in summer may perhaps seem obvious, but the English summer is short enough (and occasionally non-existent). A modern venetian blind, however, has its winter uses too. Chosen in warm colours, it can make a dark room not only seem lighter but actually draw the light into the room. At night-time they can be used most effectively by closing the slats completely, thereby blacking-out the room and protecting the occupants against the view of passers-by and cutting out any draught that may come in from the window fitments. They will also help to conserve heat and power, especially where central heating is concerned, thereby reducing fuel consumption, and at night the sheen of the blinds gives back the interior lighting of the room with added power.

In schools particularly, curtaining can be dispensed with entirely as a blind will function in every way as curtaining.

The American Society of Heating and Ventilation Engineers' Guide, 1951, reports: "Any coloured aluminium venetian blind with slats tilted at 45 degrees (normal) angle will deflect 20 to 35 per cent of solar radiation, thereby keeping rooms cooler in summer. The same 45 degrees angle of a venetian blind will also retain 20 to 35 per cent indoor heat in the winter."

With regard to cleaning, a modern blind is no longer a dust-trap. It is made to drop down from the frame at the top of the window for thorough cleaning and, in any case, special brushes are available which are finger-like in appearance and can run over the slats, removing dust and dirt in a few seconds. Once installed, it will last a very long time. The slats do not lose their colour or warp, and bending them momentarily out of shape to see out of the window cannot harm them. The cost need not be too great, especially if it is borne in mind that they do not need replacing from time to time, as do curtains, owing to fading and rotting. For instance, a blind 4 ft. wide by 6 ft. drop will cost approximately £8. They are made to individual order to fit any window from 18 in. to 12 ft. across and from 2 ft. to 15 ft. long.

(please turn back to page 380)

Handicapped children at Independent Schools

THE Education (Miscellaneous Provisions) Act, 1953, makes certain changes in the law which will affect the statutory basis on which local education authorities take up places for handicapped pupils in independent schools. The following paragraphs show the effect of the statutory changes; it will be noted that no changes are called for in the actual administration by local education authorities or the Ministry of arrangements already made.

Hitherto authorities have had to arrange for special educational treatment, either in a special school or in a school maintained or assisted by a local education authority. Authorities wishing to send handicapped pupils to an independent school have therefore had to assist it under Section 9 (1) of the 1944 Act. The amendment now made by the 1953 Act empowers a local education authority to arrange for special educational treatment in any school other than one notified by the Minister to the authority to be, in her opinion, unsuitable for the purpose. It is thus no longer necessary to make use of Section 9 (1) of the 1944 Act in order to arrange for special educational treatment at an independent school.

Just as authorities have since 1950 been able to seek the Minister's general approval for assisting independent schools under Section 9 (1) of the 1944 Act in respect of handicapped pupils, so now they may seek the Minister's general approval to arrangements for the provision of primary and/or secondary education for handicapped pupils at independent schools. These considerations apply equally to schools at which authorities propose to pay tuition and/or boarding fees under Section 6 of the Education (Miscellaneous Provisions) Act, 1953.

The amended Act states: "The Minister may find it necessary, as a result of an inspection, to notify the authority that in her opinion a particular school is unsuitable for the purpose of providing special educational treatment for handicapped children generally, or for a particular category of handicapped children or for a particular child."

When a child claims for damages . . .

C. L. Berry quotes from a number of court cases to show what is generally considered to constitute negligence and, therefore, liability for accidents, by a teacher or school.

EVEN with the best of all pupils in the best-regulated schools, now as much as in other times past, accidents will happen. There is a very widespread belief among parents that they can successfully claim damages for any accidents which happen to their children. This widespread belief may prove to be a source of trouble to all teachers, but particularly to the head of an independent school who is also the employer of his teaching and non-teaching staff. The only way, of course, in which a teacher can give himself both peace of mind and protection against financial claims is by insurance. With such prudent provision, however, there should also be an adequate understanding of the responsibilities and duties of a teacher. When a child goes to school he is entrusted to the care of the teacher by his parent. Hence the teacher is held to stand towards every one of his pupils *in loco parentis* during such time as the child is, in fact, actually in the teacher's care. The teacher thus assumes, or has imposed upon him, in relation to a pupil the same obligations, rights and duties as belong by nature and by law to the parent. A court of law will therefore expect that a teacher will behave as a careful parent would behave. So far as is necessary for the child's welfare, he would "take such care of his pupils as a careful father would take of his child." So it was said when judgment was given sixty years ago in the well-known case of "Williams *versus* Eady." The teacher must have regard to a characteristic of child behaviour with which he should be sufficiently familiar, that is, the child's natural tendency to get into mischief. The same standards cannot be applied in considering claims for damages in respect of accidents to school children which might be valid, say, in a workman's compensation case. No general rule can, in fact, be laid down to determine whether a teacher is or is not liable to a claim for damages. Each case is determined by its own particular facts. A study of case law in relation to accidents at school shows that each case is, in fact, determined by the application of common sense to the evidence submitted.

A child has no right to damages for any injury sustained at school unless the plaintiff can prove that the injury was the result of negligence by a teacher, or by the teacher's employer, or by some other agent or servant of that employer. Negligence means the *absence of reasonable care*. It has been more fully defined in this context as "neglect of the use of ordinary care and skill towards a person to whom the defendant owes the duty of observing ordinary care and skill by which neglect the plaintiff without contributory negligence on his part has suffered personal injury." The plaintiff must be able to prove that the defendant owed him a duty to take care, that there was breach of that duty, and that, as a result of such breach of duty, the plaintiff was injured. A teacher, a principal, a governing or managing body, a proprietor or proprietary company, a local education authority, may be negligent by omission or commission. The defendant (who may be in any one of the categories just mentioned) may have done something which was careless, or he may have failed to perform some necessary act or to have taken some necessary precaution for the child's protection and

safety. Whether there was, or was not, in fact, any such negligence will be determined by *the standard of prudence of an ordinarily reasonable man.*

The words "without contributory negligence on his [the pupil's] part" are of special importance because the subject under consideration is accidents to school children. An adult may be injured while engaged in his usual occupation and at his place of employment. He may claim damages for the injury received and be faced with the defence that he, himself, contributed to whatever negligence is alleged by his own negligence. He may have ignored or deliberately violated some precautionary rule with which he was well acquainted, or taken some quite improper and wholly unjustifiable risk. It has very properly been held that this doctrine of contributory negligence does not apply to children of very tender years. They are not old enough to be able to understand the risks they run. Their very immaturity of judgment imposes upon the teachers and any other persons responsible for the school special responsibilities. The age of the child may be of very great importance in determining the issue of negligence. Obviously, an action would lie against any teacher who allowed a child of five to play with fireworks if, as a result of such play, the child was injured. If, however, the injured pupil was a boy of fifteen the mere fact that he was allowed to play with fireworks would not constitute negligence.

Defining the teacher's duty

A pupil is entrusted to a teacher for a certain purpose, which is that he may be educated. If a teacher's action is called in question it may be of great importance to be able to show that what the teacher did was a proper part of his duty as a teacher, that his action was relevant to his task of instructing and educating the child. If an employer (a local education authority, a governing body, a proprietor) is sued for the negligence of one of his staff he may be able to prove that what the teacher did was something forbidden and outside the scope of his duties as a teacher. In that event there would be no claim against the employer, but there would be a claim against the teacher. It rests, of course, with the judge to decide whether there is any evidence on which a finding of negligence can be supported. If such a finding is established, damages can be claimed against the person immediately responsible, or against that person's employer or employers. An employer is responsible for the acts of his servants if they are acting within the scope of their employment. This is an application of the legal rule *qui facit per alium facit per se.*

Some of the best-known accident cases may be referred to as illustrating the practice of English courts in such actions.

A child was injured when using a gate, part of the school premises, which was known to be used by children and which was not in good condition. It was found that the managers of the school (on whom in those days rested the responsibility for maintaining the school) had been negligent in that they had failed to keep the defective gate in good repair.

Hole that no one reported . . .

Several well-known cases relate to holes in school playgrounds. There was, in a school playground, a hole, some three or four inches deep, which had been known for six months. The caretaker filled it up daily with gravel, yet he did not think it dangerous enough to report to the headmaster or to the school managers. The headmaster had known of the hole for four or five weeks, but he, too, had not reported it. He knew, also, that it was getting worse. A boy caught his foot in the hole, and so fell and injured himself. The jury found that the boy had been injured through negligence on the part of the authority maintaining the school and gave judgment for damages as assessed.

A blackboard fell on a girl's head and injured her. The jury found for the plaintiff. The defendant, however, appealed. The judge ruled that there was not sufficient evidence of negligence. It should be mentioned that sometimes appeals have been concerned with the question of who was responsible, the question of negligence having been settled and accepted.

. . . and a door that led to trouble

It sometimes happens that school furniture or fittings are unsuitable for the kind of children at that particular school. A young child was injured when using, or trying to use, a swing door. The judge described the door as something "in the nature of a trap." Judgment was given for the plaintiff because the door was not suitable for an infant school. The same door might have been suitable in a senior school and one which older children could use with safety.

One of the best-known cases related to a child who was seriously burnt when her

clothes caught fire, while she was poking a fire *on the teacher's orders.* The court found that the teacher had been negligent and judgment was given accordingly. Proceedings were taken against both the teacher and her employers, but judgment was given against the teacher only. It was held that the teacher's action was not concerned with her duties as a teacher, and that the employer was therefore not responsible for her negligence. Rather surprisingly, the decision was reversed on appeal. It was ruled that the teacher's duties are not strictly limited to teaching alone, that it was in the course of her duties and within the scope of her employment that she ordered the child to attend to the fire—and consequently that her employers were also liable for her negligence.

Phosphorus in his pocket

A fifteen-year-old boy put some phosphorus in his pocket during a chemistry lesson. Shortly afterwards it caught fire and severely burnt the boy. An action for damages was brought against both the chemistry master and his employer, the county education authority. The jury found on the evidence that there had been no negligence on the part of either of the defendants. Another case of burning by phosphorus concerned a private school pupil who got hold of a bottle of phosphorus, put a match to it and shook it up. An explosion resulted which injured another pupil, who sued the headmaster. The jury found that the headmaster had been negligent in allowing the boys to have access to the phosphorus and awarded damages for the injury sustained. The Court of Appeal refused to order a new trial.

Sulphuric collision

Another case is of interest to science teachers. A chemistry master sent two boys across a covered playground with a flask of sulphuric acid. The boys met in the playground two other boys who were playing there, contrary to the headmaster's orders. One boy collided with the acid carrier and received injury. The jury found that both the headmaster and his assistant, the chemistry master, were negligent. Judgment was given against the headmaster and his assistant. The managers, who had also been sued, were dismissed from the case. The Court of Appeal reversed the decision and dismissed the action, on the grounds that there was no evidence of any want of reasonable care by the headmaster.

A preparatory schoolboy was given a box of crackers as a birthday present by the assistant matron. He put a small whistle from one of the crackers in his mouth, which, unfortunately, stuck in his throat. This caused serious trouble and led to a surgical operation. The parent sued the proprietor of the school, who not only denied negligence, but counterclaimed for expenses incurred by him for medical and surgical attention. In this case it was held that there had been no negligence. "A schoolmaster's duty does not extend so as to guarantee that all his servants shall be equally wise and careful," was the judge's ruling. Moreover, the assistant matron did not give the crackers to the boy "in the course of her employment" by the proprietor of the school. An ordinarily prudent parent would allow a seven- or eight-year-old boy to have a cracker containing such a whistle. Judgment was therefore given for the defendant, the proprietor of the school, on both the claim and the counterclaim.

Removing a nib

The Pen-nib Case (Foster v. London C.C., 1927) concerned an eleven-year-old girl attending a London primary school. She claimed damages from the London County Council, their servants or agents. A teacher ordered her to remove a broken, rusty nib from a pen with a pair of pincers. The nib broke and some splinters from it injured the child's eye. Negligence was alleged. Mr. Justice Avory, in his summing up, said that it was not suggested that the pincers were dangerous. The suggestion was that the teacher gave a direct order to the child to take the pincers from a drawer and remove the rusty nib from the pen with them. It was claimed that the teacher gave her order without warning the child as to how she should use them or as to the need for keeping them away from her face. The judge thought that if the child had held the pincers at arm's length the same accident might have happened. The jury had to decide whether there had been a breach of any duty owed by the teacher to the child. The jury returned a verdict in favour of the injured child and awarded appropriate damages. In this case it was the absence of any warning by the teacher that constituted negligence.

continuing
WHEN A CHILD CLAIMS DAMAGES

and persistent were some of these cases of albuminuria." However, many years after these patients had left school he found they had no albuminuria in their kidneys. It is of interest to record how Clement Dukes collected these figures. He knew the boys who had had this condition while they were at school and he was on constant look-out for them when they came down as Old Rugbeians, and whenever he saw one he invited him to a meal, a *sine qua non* of which was that the guest passed a specimen of urine for him to test either before or after.

Clement Dukes divided these adolescents into three types. Those who had an increased arterial tension, those who suffered from chilblains and had congested extremities, and those who were highly strung, over-sensitive neurotics. A physician in Birmingham recently told me that the first time he met Sir Austen Chamberlain, that he, Sir Austen, told him that he had had adolescent albuminuria. The physician had the ill sense to say that Dukes believed that these were most highly strung, over-sensitive neurotics who fainted in chapel. This was fervently denied by Sir Austen Chamberlain on his own account. Presumably the physician did not realise that Dukes recognised other classes. I think Sir Austen Chamberlain would probably have fallen into the first class which Dukes assesses by far the largest, which exhibit increased arterial tension.

Looking back is always said to be an unprofitable occupation unless it helps us to see further forward. One problem which does want settling is whether some adolescents have increased arterial tension. Dukes's contribution should make us settle it, for one of the points he raised was that boys with adolescent albuminuria have increased arterial tension. My impression is that the blood pressure during the years immediately following puberty becomes higher and then falls, and it is important to know what the sequel really is. When I first came to Rugby as Medical Officer and began examining normal boys I found that approximately 25 per cent had adolescent albuminuria, and I also found when I took a routine test of their blood pressure that it was very much higher than I would have expected; the maximum normal is usually 110, but many boys had blood pressures of 130 and a fair proportion had blood pressures of 140. It seems to me that there is a definite tendency for boys of this age to have a raised blood pressure which subsequently falls to lower levels.

I have gone into this past history because it is important to know the steps by which we ascend, and it is also important to know our ignorance. The *British Medical Journal* has a feature, "Any Questions?" and in the issue of July 25, 1953, on page 236 is:—

"Q.—Height and weight tables for both children and adults seem nowadays on the low side. Most of these tables were compiled many years ago. Could up-to-date figures be given?

"A.—Height and weight tables for adults generally give the 'normal' weight for different heights and ages; they give no information about the 'normal' or average height. The best tables that are available are those published by the Metropolitan Life Insurance Co. of New York, but a comparison of these with older tables gives no indication whether American adults are taller now than they used to be, but only whether they are heavier at a given height and age.

"Unfortunately, there are no up-to-date tables for the heights and weights of British adults or children which are sufficiently comprehensive to be recommended for general use, but there seems to be no doubt that present-day children are both taller and heavier than children of similar ages thirty to forty years ago. Until measurements of large numbers of British children are available the figures published in 1941 by O'Brian, Girshick and Hunt* are recommended. These tables were compiled from the average measurements of 147,000 American children from various walks of life and living in 17 different States; the measurements were made between 1937 and 1939 for the purpose of designing patterns for children's garments."

I have quoted this in full because it does show how much we still have to learn. Public schools are perhaps fortunate in having a study made for them by Dr. G. E. Friend, of Christ's Hospital, which he has published in his book, "The School Boy and his Nutrition." Nevertheless, I believe that many schools could make a contribution to this vexed question of what is a reasonable height and weight. I have before me a table of heights and weights of Australians, kindly supplied by Mr. C. A. Elliott, Actuary to the Australian Mutual Provident Society. The whole position is

(continued on page 398)

* U.S. Department of Agriculture. Publication No. 366. Washington, 1951.

PLANNING THE WINTER MENU

by Professor V. H. Mottram

IN my schooldays I imagined that the headmaster, as well as the other school masters and the housekeeper, had as long and as jolly a summer holiday as myself—six or seven weeks' freedom from the grind of supervising education, marking exercise books, giving 'em jaws, and catering and mending for a pack of ravenous and untidy schoolboys. Even when I had got my degree and was vaguely wondering what I should do in the world, I still thought that little more than a few days at the beginning of the holidays writing school reports and a few days at the end preparing to receive the hordes of returning savages plus the new boys were to be taken out of that glorious period of freedom! Not till I got, for a brief while, caught up into the whirl of scholastic life did I realise how much of the summer holidays were unavoidably given up to clearing up arrears, planning the forthcoming term's activities, interviewing possible pedagogues and quite impossible parents, or, in the case of the domestic work, renewing, repairing and purchasing commodities. The school staff's life is not a very happy one!

It is much worse on the catering side these days than it was when I was a schoolboy. Boys were treated rough as regards food. I was at a school which since my days has become a conference school—i.e., a "public school." We rose, or at least were wakened by the sergeant's bell, at 6.30 a.m.; we washed in cold water and were expected to be dressed and down in the school hall by 7 a.m. for an hour's preparation. Breakfast was at 8.5 a.m. and consisted of bread and margarine and tea. Dinner was at 1 p.m. and was substantial: roast meat, potatoes and carrots or greens, plus a heavy stodgy pudding. Tea was at 6 p.m.—bread, margarine and tea again. To bed at 9 p.m. *and* supperless.

We ought to have suffered from every vitamin-deficiency disease there is. We ought to have got scurvy. Our teeth should have rotted. We should have been unable to see in the dark. And the infirmary should have been full. So far as I remember the infirmary was almost chronically empty—there were a few mild epidemics of chickenpox and mumps and one bad one of scarlet fever. And during my whole six years only one boy was afflicted with mortal illness (and that in the scarlet fever epidemic). My brothers, who were at the same school but several years earlier than I, did complain of swollen painful joints in the spring term, which is suspicious. It may have been incipient scurvy.

The bursar's lot in those days could not have been very strenuous. In fact, there wasn't a bursar. He was a later invention. The housekeeper did all the catering as well as managing kitchens, laundry, linen-room, etc. The headmaster had no secretary but somehow managed the correspondence and the accounts. Catering obviously wasn't difficult. You didn't have to plan much. Meat was plentiful and cheap; little change was rung on the vegetables: potatoes, carrots, possibly turnips, and greens; breakfasts and teas were a monotony of bread and margarine and tea (from an urn).

But variety was creeping in. A new headmaster took over. He taught us Greek in the pre-breakfast preparation time and he discovered that he couldn't work before breakfast unless he had something inside him to sustain him. Soon after we had started a knock would be heard at the door of his study; he disappeared for a few minutes, and scouts beheld him through a crack in the door hastily swallowing a bowl of porridge. Since he was both a thoughtful and humane man he assumed that we couldn't work on an empty tummy. (It was untrue. I used to leave difficult work till morning preparation, finding that I could solve equations then, which had defeated me the night before.) So he instituted an early-morning biscuit. Later came supper for the prefects who were not on duty in the dormitories. By the time I left

school the thin end of the wedge of feeding schoolboys somewhat as if they were adults had been duly inserted, to be driven well home in the Edwardian and Georgian days that followed.

Well, to-day schoolboys (and I suppose schoolgirls) at a boarding school get three cooked meals a day; possibly something at break in the morning and something in the mid-afternoon. And actually governors of a public school have recently written to me to know if the period between "high tea" at 6.45 p.m. and breakfast at 8 o'clock the next morning is not too long for adolescents. (I wish I knew, but I don't.)

Now, as a nutritionist I am by no means against all this attention to the young thing's diet. In fact I approve. It's wasteful to give all the animal protein at one meal and practically cut it out in the rest. (That's what they did in Victorian days.) The rule of "little and often" is also nutritionally right, though it must be desperately annoying for the staff running a boarding school. I do approve of paying attention to vitamins, and protective foods. (If we Victorians apparently got on without vitamins, it may be because we surreptitiously ate hips and haws and rose shoots, etc., and stole turnips and swedes from the fields, and ate them raw.)

So to-day bursar and housekeeper are spending much of the so-called holidays tearing their hair trying to plan the feeding of their school during the winter months. They know all about the need for proteins, calories, mineral elements and vitamins, or, to put it in more understandable words, for protective foods, body-building foods and body-warming foods. But how to translate this knowledge into menus for breakfast, dinner and high tea? And at a reasonable cost, when the cost of food, like Dorothy Dean, has suddenly flown to regions unknown?

Of the protective foods—i.e., dairy foods, market garden foods and fruit and fish, especially flat fish—everything is expensive. Milk has gone up to more than double its pre-war price; oranges, grapefruit and lemons—the only winter fruits with much vitamin C—cost a fortune each; the only cheap fish, herrings, kippers and mackerel, present difficulties in feeding the young. Besides which they smell!

The body-building foods — milk, meat, fish, cheese and eggs — tell a similar story. Meat is a "must" because of public convention. Milk similarly is a "must" because all nutritionists say so and this has got into the heads of the public. Eggs are prohibitive. Perhaps from the nutritional and economic points of view they would be worth their while at 3d. each, but there are signs of their rising in cost to 9d. each. Cheese only, rationed and unrationed, remains at a price which may be considered reasonable.

The body-warming foods—bread, potatoes, margarine, sugar, golden syrup and treacle, flour, cooking fat—we know all about. They are cheap for energy, and bread and sugar are the cheapest ways of purchasing food energy. No boarding school will stint these commodities, especially since the rationed ones are coming off the ration. They are the one bright spot in the sky of the rationing officer.

So we are left with a meagre lot of foods to choose from.

The midday dinner has to be meat, potatoes, cabbage or carrots or turnips and swedes, and a pudding. Best have a stodgy suet pudding or jam or treacle tart. One cannot afford the time to prepare brussels sprouts—the highbrow form of cabbage—worse luck.

Breakfast? Porridge by all means, *but only as a vehicle for milk and sugar.* One helping of oatmeal porridge gives only 100 calories, whereas a breakfast should supply at least 700. Bacon and such-like pig meat as far as the ration will go—even that is like eating money. Kippers?

High tea? This is almost the worst headache of the lot. I think that I should investigate more closely than domestic science cookery books do the possibility of cheese dishes. The off-ration cheeses, like the Dutch and the Swedish, will cook reasonably well if moistened with milk after grating and before heating, and you can improve their taste with a judicious dash of cayenne pepper. Also I wonder if young people couldn't be induced to eat a raw vegetable salad with lots of grated cheese in it. There is such a thing as Russia salad to use up left-overs of meat along with diced cooked beet and other root vegetables. (The salad dressing would have to be made in the kitchen, for the price of "salad cream" from the stores is dreadful.)

I have omitted sardines, pilchards, sausages and cod for personal reasons. The war years made me want never to see them again. Perhaps bursars and housekeepers can face these commodities despite the price of two of them. But if you do give sardines, realise that the least weight you should give per helping is 2 oz.

Home Economics

a report of the Edinburgh International Congress, by Doreen Davies

EDINBURGH was the setting for the Eighth International Congress on Home Economics held in this country for the first time. Over twelve hundred specialists in home economy, representing 47 nations, gathered to exchange ideas and discuss the theme of the Congress: "Home Economics at the Service of Life."

The Congress was opened by the Minister of State for Scotland—the Rt. Hon. the Earl of Home—who, in referring to the modern trend of taking the training of the citizen out of the home and making it a public responsibility, stressed the importance of the home influence. "We can build a house, but a home must grow," he said. "We can supply schools and education, but religion and morality are founded on parental love and care. We can perfect the law, but obedience, self-discipline and leadership derive most surely from the father's authority. All home life is not good, but beyond doubt the good home is a sure foundation for the good society. Education in Home Economics is one to which we can subscribe our wholehearted support."

During the course of the Conference, opportunity was provided for members to see how Home Economics teachers were trained at the Domestic Science Colleges in Edinburgh and Glasgow. Methods of training teachers in different countries were reported. It was evident that the main aims of the training were similar, and that moral and social aspects were important everywhere. Elements common to all schemes were summarised thus:—

(1) Instruction in current educational theory and methods and administration.

(2) Instruction on the characteristics and needs of children at various stages of development and on the factors that promote or hinder the healthy growth of body, mind and personality.

(3) The provision of a sound theoretical training in basic science as a foundation for practical teaching to both children and adults.

(4) Training in the basic methods and principles of cookery, laundry work, housewifery and needle subjects. Among the subjects studied are the source, price, choice and storage of foods and commodities in daily use; the preparation and serving of meals of wholesome and appetising character; and personal and general hygiene.

In several countries the universities have recognised this training and have granted a degree, B.Sc. Domestic Science, for holders of a domestic science diploma. In other countries colleges are still endeavouring to gain recognition by their particular university.

Consideration was also given to the many varying aspects of Home Economics in the different countries; for instance, in the Netherlands Domestic Science is not taught in secondary schools, but in centres of training for technical professions. These fall into two types, one specially for domestic science and the other mainly agricultural.

Norway aims to give every girl training in housecraft. Physical training and Horticulture are included in the training, and some colleges have a Nursery section.

Sweden lays stress on the value of practical experience in a home before the more theoretical and scientific part of the study of Home Economics is made.

In the United States training is similar to that in Great Britain; courses vary in different colleges. In the secondary schools Home Economics is taught for one hour per week, and sometimes boys and girls study the subject together. Much importance is attached to the interrelation of different subjects. From the reports on the teaching of Home Economy it was clear that homecraft has become an integral part of educational systems of all countries represented.

The benefits which result from the International Exchange of Teachers, Fellowships and Scholarships was another subject which occupied some of the thoughts of the Congress. Most countries welcomed such exchanges in experience, in spite of the difficulties such as language, unfamiliarity of methods, and shortage of Home Economy teachers.

The necessity for centres of Information and Research on problems of Home Economics was raised. Until recently no acknowledgment has been made of the need for systematic investigation of domestic work. The 20th century has brought with it many changes in our accepted ways of life which

how to choose your

Ground maintenance equipment

by W. E. Shewell-Cooper, M.B.E.

YOU will find an inventory of all the tools used in the garden and on the grounds very useful for checking on equipment—Michaelmas is the best time to check carefully. Spades have a peculiar facility for disappearing, and many a trowel can vanish into thin air! When I was at the Swanley Horticultural College we used to paint a green ring around the handle of each tool; thus if anyone "borrowed" it they either had to take the bother of cutting the painted portion off, or else it was known far and wide that the tool had been appropriated. Another method I've adopted is to brand each tool—and a brand is perhaps more difficult to remove.

However, taking an inventory is well worth while—it's wonderful the way George remembers that he's left a bagging hook in the long grass at the edge of the cricket field—when the counting is done. It helps, of course, if one can have a set place for every hand tool in the shed, and then outline it in pencil or paint. Thus when a trowel is not hanging up, one can see immediately that it is missing because its outline appears on the wall. Inventories are useful, too, because they throw into relief the need for replacements.

Unearthing broken tools

For some reason or other men are not always anxious to report a broken spade. It is just put away and conveniently forgotten for the time being. If proper valuations are made and the correct percentage is deducted year by year, it is possible to effect the necessary savings out of tax. Most people to-day like to have their spades and forks fitted with the strong, steel reinforced, Y-shaped handles. One can buy the Allbright solid steel, which never bend, for 25s. each, or the standard pattern spade size 1, with a tread to it, for just over 22s. Groundsmen in East Anglia will probably insist on the Norfolk pattern spades, which are "non-treaded" and sell for about £1. Of there is, of course, the Yorkshire pattern with no tread for 21s. or so.

Spade for draining

Where there is any draining to be carried out, and there so often is, in connection with the school playing field, then a good draining spade is worth having in stock. One with a blade 5½ in. by 3¼ in. by 16 in. is ideal for the job, and should cost about 22s. Where regular turfing and re-turfing is done there is, of course, the turfing iron, which would be bought made of solid steel at a cost of, say, 35s. Before leaving the draining alone, it's a good thing to have a scoop of the pull pattern fitted with a 6 ft. handle, at a cost of 30s.

Watering and hedge cutting

It is true that in 1953 one hasn't had to water much, but in normal years a Brosson Rainer is ideal for this work. Instead of the usual head which revolves round and so covers a circular plot, the Brosson solemnly waves backwards and forwards and thus covers a square area. The Brosson can be stood sentinel-like in any part of the garden or grounds and will fit on to the end of any normal hose. Another first-class mechanical tool is the Tarpen Hedge Cutter, which can either be worked from an electrical point in the school or can have its own generator which costs round about £60. This generator can also work what is called a Grassmaster, which can cut any rough grass in the most awkward of positions. It

is invaluable for banks or for areas where the grass grows right up to the school wall.

When it comes to shears, there's a lot to be said for Wilkinson tools because these are made from the finest sword steel. They are comfortable to use, they don't rust easily, and they last a long time. It is useful to have the shears with a special pruning notch which can be used in cases where there's a tough branch of a hedge to cut back. Such a pair of shears may cost about 37s. 6d. Those who are not using the automatic electrical Edgemaster shears will have to see about the long-handled hand edging shears, and it is convenient to have these with tubular steel handles because these provide both lightness and great strength. It is possible to have them fitted with special rubber grips, which not only make them comfortable to use, but enable the gardener to go on far longer without tiring.

Where there are big areas of lawns, tennis courts and cricket grounds, it may be advisable to have a fertiliser distributor, so fitted that it can distribute lawn sand, fine sedge peat or compost in quantities ranging from 1 oz. to 8 oz. to the square yard. The one I have in mind has no metal parts which come into contact with the fertiliser, and has a sowing width of 27 in. The hopper contains 70 lb. of the material to be distributed, and with the wheels the over-all width is 3 ft. 10 in. It can easily be pulled by hand, and can be fitted with rubber tyres.

Truck for transport

A wheelbarrow is, of course, invaluable, but this has been largely displaced by the garden truck with fixed sides and tailboard hinged to drop, or with deep sides which have steel corner angles and so are removable in one piece. Such trucks fitted with pneumatic tyres cost approximately £15 to-day, as compared with £10 for a good old-fashioned wheelbarrow with removable top. No one wants to bear the weight on their arms when, by introducing the second wheel, loads of 4 and 5 cwt. can be moved with the minimum of effort. There are, of course, bigger types which will take 8 cwt. and more, but these are in the region of £22.

For the long grass on the outside of the main cricket area there is nothing that makes a better job of cutting than the Hayter, which uses a revolving blade, rather like a propeller. The actual cutting edges can easily be removed for sharpening, and when they wear out altogether they only cost 1s. or so for replacement. A groundsman with one of these will take care to see that it is properly decarbonised during the winter and that the blades are in perfect condition. The same instruction, of course, applies to the normal motor mower. A Ransomes four-stroke engine will drive the 24 in. blade perfectly and the initial outlay is £210, but you have a wonderful precision job. For those who haven't quite the same grass area to cover there's something to be said for the 18 in. Gazelle, made by the same firm at a cost of only £52. It pays again and again to have these machines properly serviced in the winter months, though a keen groundsman will be able to do much of this work himself.

Mechanised Sprayer

One invariably forgets to overhaul the spraying machine in the summer, because there is so much to do, but this month it certainly must be done if effective work is to be assured. Those who have Clifford rotary cultivators for other purposes can use a tank and fitted pump in conjunction with this without any difficulty. The alternative is to have a mechanised sprayer which works on its own, and fortunately there is one made by Four Oaks which is only 80 lb. in weight. This is mounted on two 20 in. pneumatic-tyred wheels, and is more mobile than most of the hand-operated sprayers.

There are, of course, numerous other hand tools to be thought of, the standard sized Springbok rake for instance, which is ideal for scarifying the turf, and costs 15s. There are the forks, either the full size with four half-right prongs 8 in. by 13 in. for 22s. 6d., or in the case of the heavier stony land the flat-tine forks with four prongs 7½ in. by 11 in. which sell for about 24s. For greenhouse stoking one needs perhaps an open-socket shovel for 12s. 9d., or one of the larger size 10 for 16s.

The writer will always be pleased to advise readers on mechanical tools suitable for playing fields, which he is constantly trying out at the Horticultural Training Centre, Thaxted.

Central Sanitary Incinerator

G.E.C. have produced a larger model of their sanitary incinerator. The new unit is 18 in. by 20 in. by 36 in. high, with rating of 6 kW., and arranged for direct connection to the mains. A hand-operated rocker hearth is fitted and there is a withdrawable ash drawer at the bottom. A 6 in. flue outlet is provided at the back of the unit.

BOOK REVIEWS

Attainment Tests in Physics, Parts I-IV

By J. C. Daniels.
(University of London Press.)
Part I. — Mechanics and Properties of Matter; pp. 54.
Part II. — Light; pp. 36.
Part III.—Magnetism and Electricity; pp. 48.
Part IV.—Heat and Sound; pp. 40.
Price 1s. 6d. each part.

IN the *School Science Review* of November, 1942, there appeared a discussion of a new-type achievement test in Science and in addition to a consideration of the theoretical bases of this type of test, hints on the construction were given. The tests under review conform in some respects to the pattern suggested then.

Each of the parts of these tests contains eight or nine tests and each test is confined to a single topic or a small group of related topics. In Part I one test is concerned with Density, Specific Gravity and Pressure, another with Work, Energy and Power, and yet another with Boyle's Law and Hookes' Law. In the other parts similar conventional groupings are adopted.

All the tests, with the exception of the revision test at the end of each book, consist of thirty questions. Of these the first ten are of the type which requires "yes" or "no" for the answer. The next ten, multiple choice questions, give four possible answers from which the correct one must be selected. The last third of each test consists, in the main, of calculations involving the application of general principles and the arithmetic has been deliberately simplified.

Mr. Daniels is Tutor in Charge of Tests and Research in the Institute of Education at Nottingham University and it is to be assumed that he has checked both the reliability and validity of the tests. He makes no reference to these points, the Preface being merely a set of brief instructions to the pupil attempting the papers. The only indication that the tests do, in fact, measure attainment is in the title, but science masters using them would be interested to know what method was used to check the reliability, how many pupils were tested and what coefficients were obtained.

In the Magnetism and Electricity section some of the terminology is hardly up to date. "Condenser" and "capacity" are terms used instead of "capacitor" and "capacitance" and a galvanometer is referred to as a galvanoscope. This is a pity when efforts are being made to bring the elementary instruction in Magnetism and Electricity into line with engineering practice.

There is a place for this type of test as an additional method of estimating a pupil's progress when it is used in conjunction with the more formal examination.

Introduction to Biology

By C. V. Wood.
(Allman & Son. 5s. 9d.)

IT has been said that there is no excuse for the teacher of biology who fails to cultivate in young children an active interest in the subject. True, indeed, for what could be more fascinating than the study of life itself? The majority of children possess a natural curiosity about the processes of Nature, and merely require the guidance of the teacher in order to reap the benefits of their own observations. For this purpose the subject matter in this book is certainly adequate; in fact, the author may be censured for including too much information in what is to be regarded only as an introduction to the subject, but this is purely a matter of opinion.

The book is designed first for use in secondary schools where biology is taught to the exclusion of other sciences, and secondly as a first-year textbook for use in grammar schools. The author points out in his preface that living organisms cannot be dissociated from their environment and that field studies are therefore essential. The subject matter has therefore a seasonal arrangement which should prove valuable to the teacher. The chapters dealing with migration, hibernation, the nesting habits of birds, and insects are particularly to be recommended. D.K.L.

The Popular Book of Botany

Edited by J. Ramsbottom, O.B.E., D.Sc.
(Ward Lock & Co., Ltd. 17s. 6d.)

THIS book, edited by Dr. J. Ramsbottom, O.B.E., formerly Director of the Department of Botany at the British Museum (Natural History), gives a clear, concise account of the principal features of the Plant Kingdom in a way that will prove invaluable to the layman, as well as being of considerable interest to students. It is not a simple matter to condense such a vast subject into the pages of any one book; credit must be given to the contributors who have given the reader a good introduction to the various branches of this science in what constitutes an excellent basis for further reading.

The book commences with a study of the living cell and then deals briefly with the physiological aspect under the heading of "Life's Processes" (the process of reproduction is given separately in greater detail). Succeeding chapters cover the structure of flowering and non-flowering plants. Finally there are four chapters giving a broad survey of heredity and genetics, the ecology, evolution and classification of plants in such a manner as to be comprehensive without being too technical. The illustrations are adequate. D.K.L.

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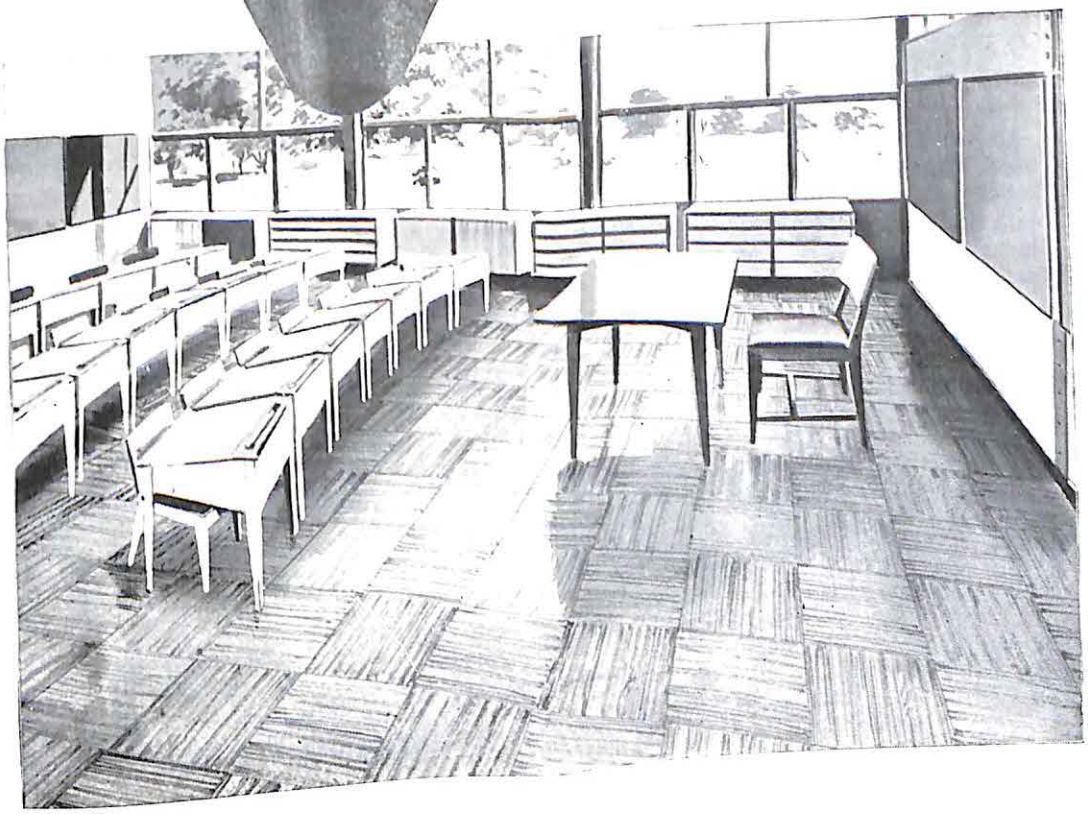

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12

continuing

The purpose of health records

(from page 388)

summed up by the fact that males are usually loaded if they are more than 25 per cent under the average weight, and females if they are more than 30 per cent under the average weight, otherwise no difference is made for sex.

I have perhaps strayed from the straight and narrow path of records, but I do feel that records are not much good unless they are put to a purpose, and that purpose is to answer questions which will help us to build a healthier generation. The type of questions to which I would like to have the answer are as follows:—

(1) Do those who are 10 per cent under weight have healthier lives than those who are 10 per cent over weight?

(2) Do girls who have been exposed to German measles in school develop latent immunity as judged by their freedom from the disease in later years, and, of course, their freedom from producing deformed babies?

(3) How many grossly fat boys or girls become normal in later life?

(4) Does the boy who has been immunised against diphtheria and against tetanus at school retain his immunity for several years, or at least for as long as he is in the Army for his National Service?

There are many questions to which people want to know the answers, and in fact doctors are considered always able to give *ex cathedra* statements, the public little realising that these are impressions and not based on the judicial analysis of the facts.

Schooling means more than scholarship

(continued from page 375)

immediately after its launching: it will be berthed at Lambeth and used by past and present pupils at the school.

The construction of a boat, which might be thought to have employed all the appropriate class time and spare time of the boys, is only one of a series of similar projects. The school has already built three canoes which have been taken down the River Wye; there is a Model Aeroplane Club, the models constructed in the school workshops; there is a Puppet Theatre with puppets made in woodwork classes; and a very large Photographic Club. An entire room is given over to model railways—the trains running through a varied terrain which the boys have built on a very large table.

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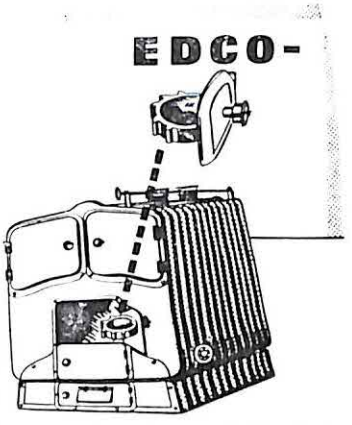

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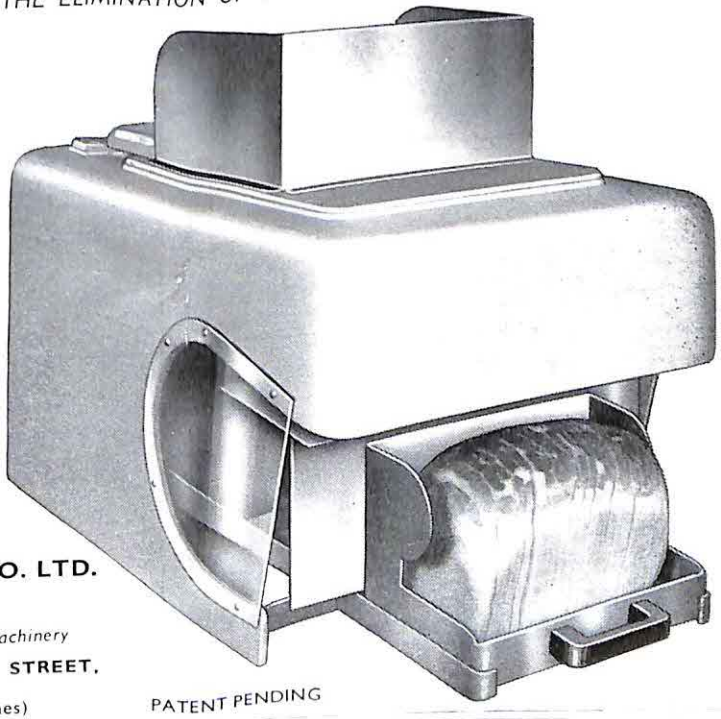

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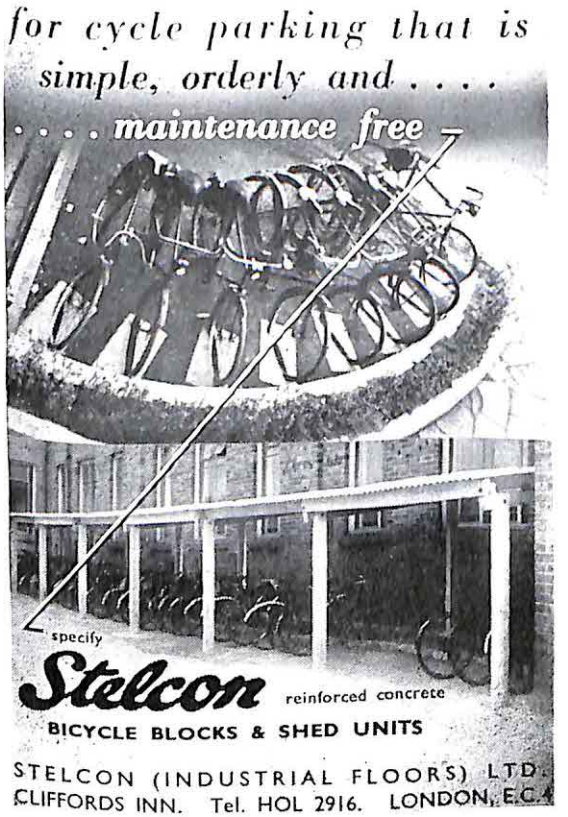

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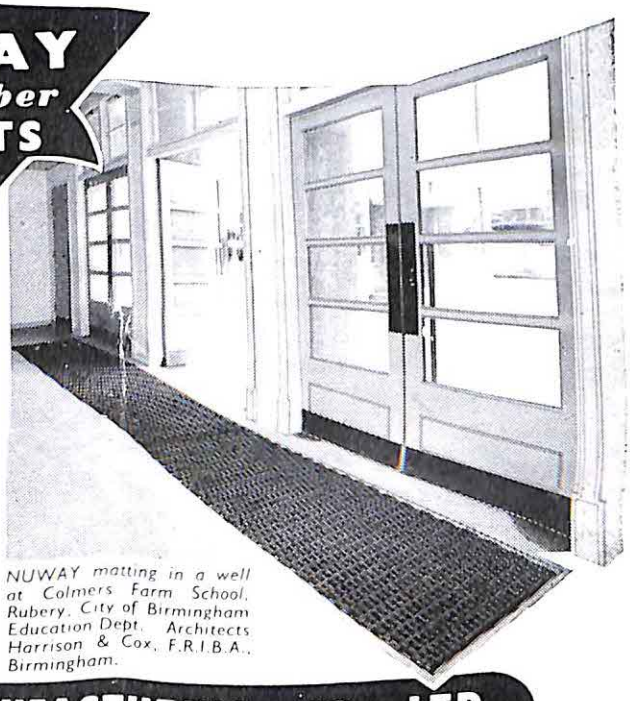

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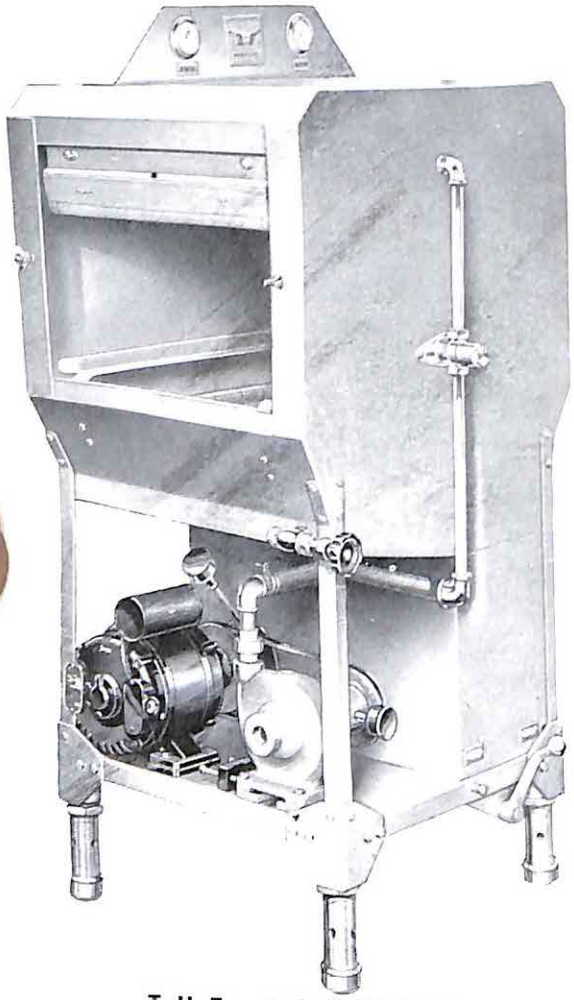

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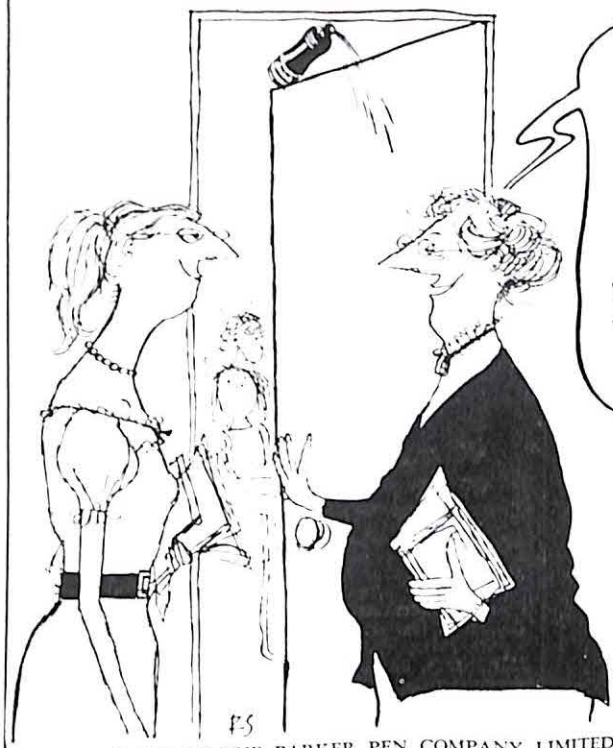

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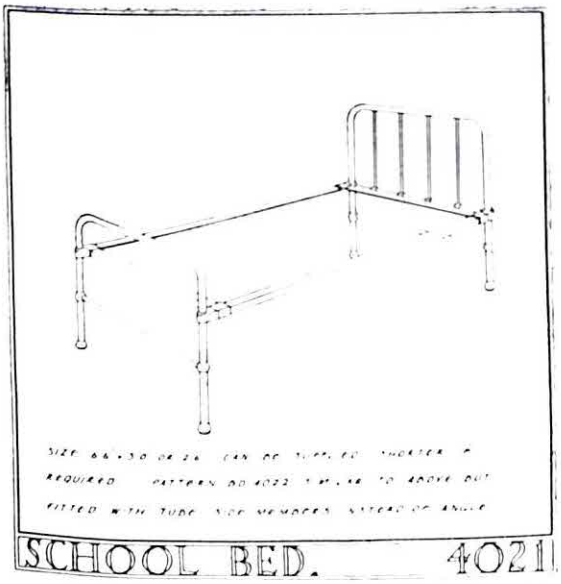

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SAVE YOUR SIGHT . . . BY BETTER LIGHT

G.V.D. stands for all that is best in lighting, i.e., for light that is glareless, shadowless and evenly diffused, and for producing this in the most efficient, effective and economical manner.

The G.V.D. SYSTEM treats lighting as a means to an end, namely, to enable you to see your surroundings clearly and comfortably, and not just to see how many lamps and fittings we can persuade you to use.

Many people have a mistaken idea that the more artificial light one has the better one can see. So one can, momentarily, as one can with a magnifying glass; but if we use this continuously we shall soon lose the power to see normally without it. Therefore, let us use no more artificial light than is necessary for clear and comfortable vision.

What is wanted is not light with a kick to it, but rather light that is cool and soft on the eye, while still enabling us to see everything clearly.

How many of us, now wearing glasses, would love to be able to dispense with them, yet more of them than ever are being worn to-day.

We still neither Use nor Recommend Fluorescent Lighting, and it is interesting to note that the French Government, after long and thorough research has prohibited its use in schools.

Among the places where good lighting is most vital are the home, the nursery, and the school, for the eyes of the young are not fully mature and are less able to resist the harm that may be done by wrongly applied artificial lighting.

The fitting illustrated is just one example of a simple application of the G.V.D. SYSTEM. This fitting could light a room perfectly up to about 300 square feet in area and up to about 9 ft. 6 in. high, and the larger size will light up to 500 or 600 square feet, enabling you to sit in perfect comfort in any corner of the room.

The following are a few well-known concerns who use the G.V.D. LIGHTING SYSTEM:—

Head Office; Ministry of Works; Air Ministry; London County Council; Civil Service National Whitley Council; National Dock Labour Board; London Chamber of Commerce; Savoy Chapel; D. Napier & Son Ltd.; Imperial Chemical Industries; Liverpool University; Magdalene College, Cambridge; Ridley Hall, Cambridge; Cheltenham College; Hereford Cathedral School; the new Birkbeck College; Cerebos Ltd.; Shipbuilding Conference; W. H. Jones and Co. (London) Ltd.; Millers' Timber Trust Co. Ltd.; Faber and Faber Ltd.; Legal and General Assurance Society Ltd.; Wolf & Hollander Ltd.; Brompton Oratory; The Polygon Hotel, Southampton; H. Samuel Ltd.; Fuoyl Ltd.; Incorporated Institute of British Decorators; Museum of Antiquities, Amman; Phaidon Press Ltd.; New Health Club; Claridges Hotel; Queen's College; Institution of Naval Architects; The London Clinic; and all branches of the London Health Centre Ltd.

For further particulars please apply to the following address:

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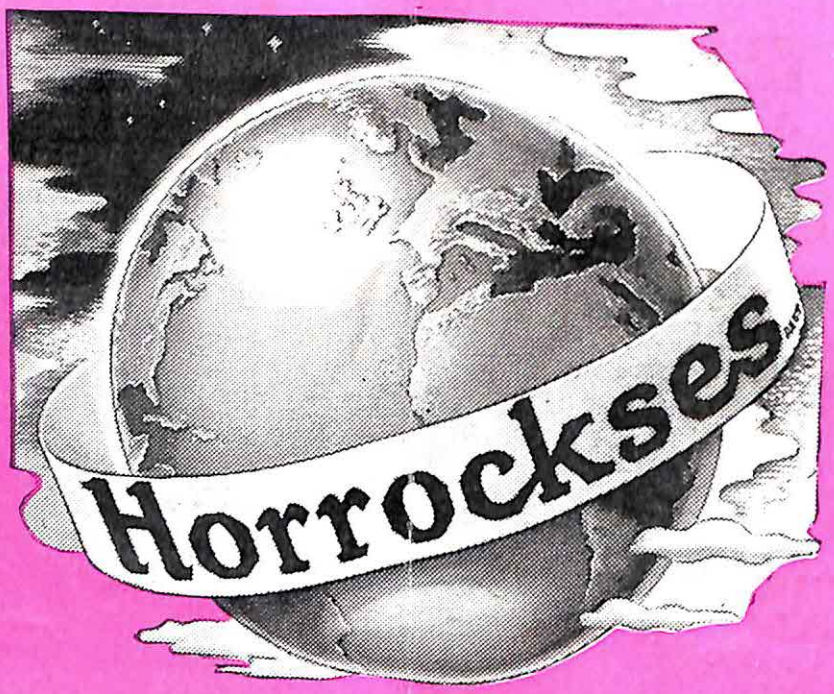

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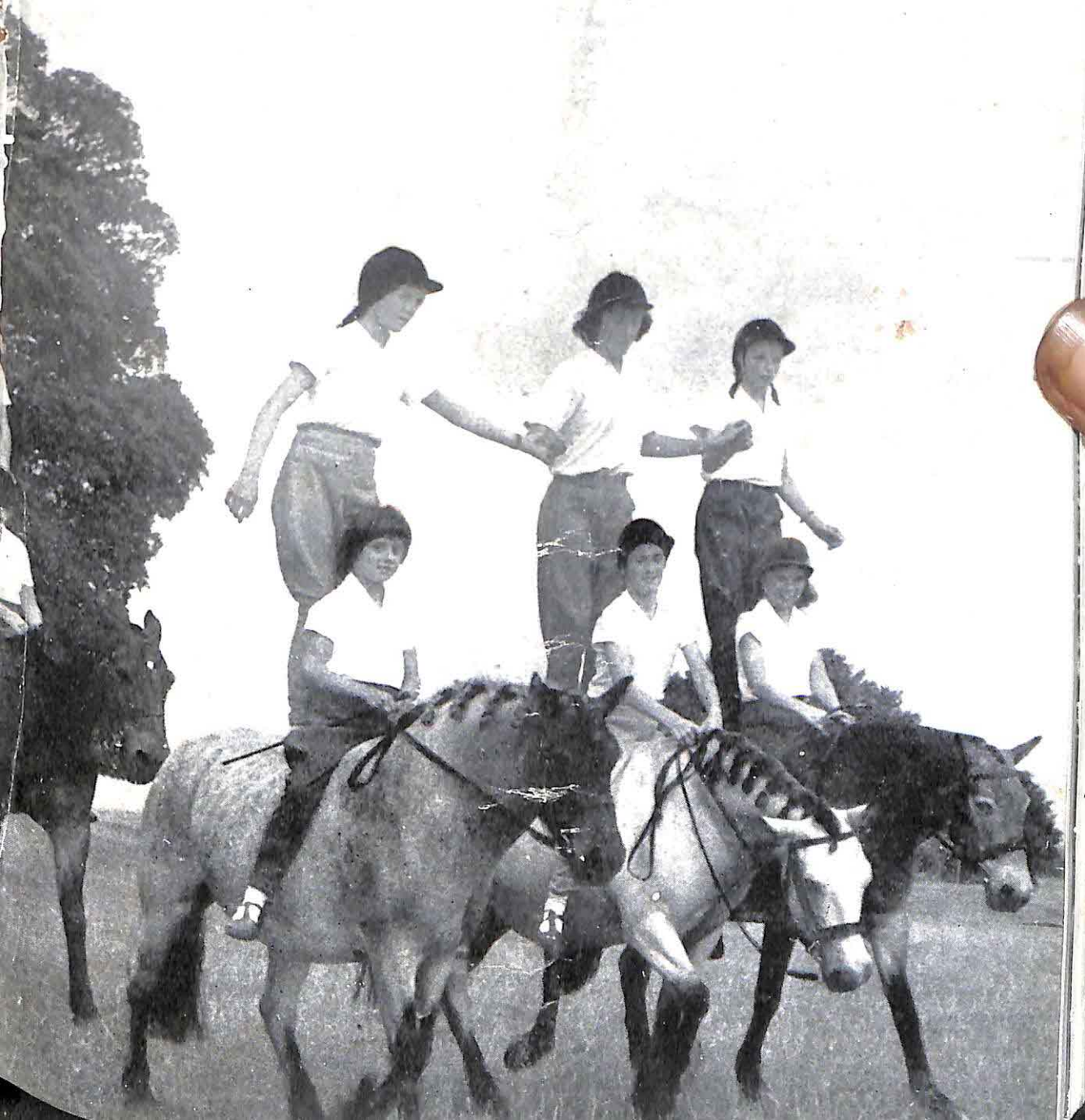
Sheets, Pillowcases, Towels, Dress Goods, Furnishings, Flannelettes, Wincettes, Shirtings, etc.

SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 10. One Shilling and Sixpence October, 1953



YOUR CLEANING PROBLEMS SOLVED!

A Hedley Product for Every School or College Cleaning Job

For *every* type of cleaning job, whether large or small, you'll find a Hedley product that's right at the top of its particular class. Crockery and cutlery to wash—or carpets, furnishings and upholstery to clean? Whatever your cleaning problem, there's a product in the Hedley range to answer it.

DP52 The Great New Multi-Purpose Detergent

DP52 is a white powder, non-dusty and free-flowing. Readily soluble, even in cold water. Linen, dishcloths, paintwork . . . a hundred and one vital washing and cleaning jobs in *your* establishment will be done better, faster, more easily with this truly modern, all-purpose detergent.

NEW, SAFE DISH-WASHING DETERGENT!

ORVUS

—and here are some of its advantages: Orvus is safe and has fine sudsing properties. It is a free-flowing powder and is bactericidal. For *you* Orvus means: *more dishes washed faster* in either hard or soft water—just a quick rinse and no need for wiping; *safety* for delicate glazes and colours; *brighter* upholstery and carpets; *voluminous lather* and *time saved* through ease of handling!

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Scourox is the safe, non-scratch cleansing powder—makes baths, tiles, sinks, pots and pans bright as the sun and free from any gritty residue!

For dish-washing machines

GUSTO! The money-saving, safe, non-caustic, germicidal detergent for dish-washing. Works like a charm—especially in soft water areas.

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The economical laundry soap powder that needs no preliminary mixing. Ideal for high temperature washing!

For full information about these and other Hedley products, write to:
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Quality
is a Degree of Excellence

In these days of high prices there is an understandable tendency to seek economies. But in this competitive world, economies usually mean a lowering quality and we believe that quality should not be sacrificed for economy — the two must be achieved together.

In the matter of school equipment, the E.S.A. has been proud to take a leading part over the years in the building up of high standards, and today, British schools are the best equipped in the world.

At this time, in duty to the children who use the equipment and materials, and in the interests of long term economy, it behoves Authorities, Schools and Manufacturers alike, jealously to guard against the temptation to set aside these well tried and tested standards.

Even a copper or two less spent on a simple exercise book can easily be a false economy, or the life of a desk reduced by years for the sake of a few extra shillings wisely spent.

ESA

THE EDUCATIONAL SUPPLY ASSOCIATION LIMITED

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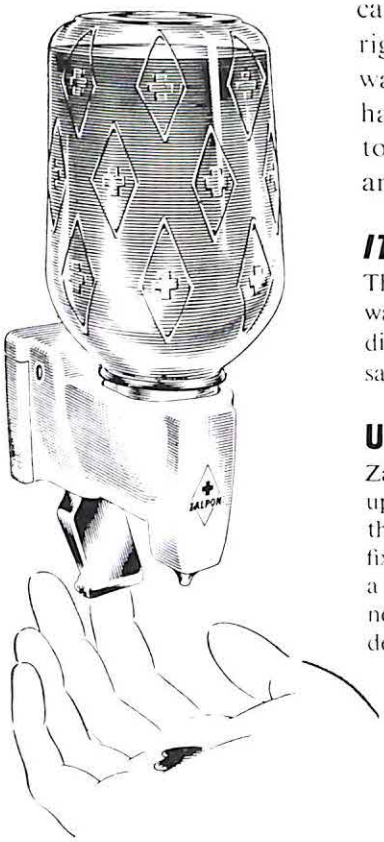
ESA 104

"We're all dead keen on ZALPON – it's marvellous for dirty hands"

It's ZALPON – it's a washing cream



Zalpon is new, and it's great news—a washing cream that can't be wasted. The dispenser measures out just the right amount to wash a pair of dirty hands. There's no waste—even the last drop is used. Zalpon lathers in the hardest water. It's made from pure soap and fine quality toilet detergents, and leaves the hands perfectly clean and smooth.

IT'S PILFER-PROOF

The dispenser locks on to the wall, the bottle locks into the dispenser. It keeps your Zalpon safe!

UP TO 2,000 WASHES

Zalpon cream gives you up to 2,000 washes to the bottle The bottle is fixed into the dispenser in a few seconds. There's no messy and wasteful decanting.

OVER 20,000 WASHES

Zalpon is delivered in cases of 1 dozen bottles. It's easy to store, easy to use.

ZALPON

the new way of washing

Ideal for Schools, Cinemas, Restaurants, Offices, Hospitals, Factories and Public Cloakrooms everywhere.

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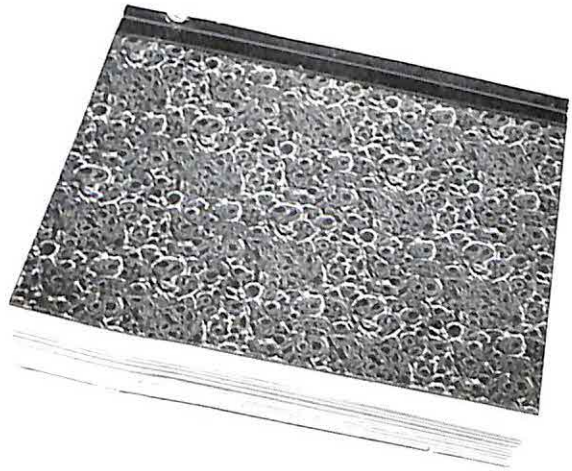
Everything a School Needs

The British Blackboard Brush

Clean and easily controlled. A brush especially designed to trap chalk dust between its edges of coiled felt. Felt area 6" × 2".

3s. 6d. *EACH.*



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Our wide range of school stationery is manufactured in our own factory. Schools may be confident of the best at the most economical prices. Catalogue available on request.

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We shall be pleased to receive enquiries for any type of badge and to furnish a quotation at the keenest prices. A brochure in full colour displaying a wide range of styles available on request.

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This toughened glass flask is fitted with a specially designed instant control pouring device. The "waisted" design of the flask allows it to be gripped firmly.

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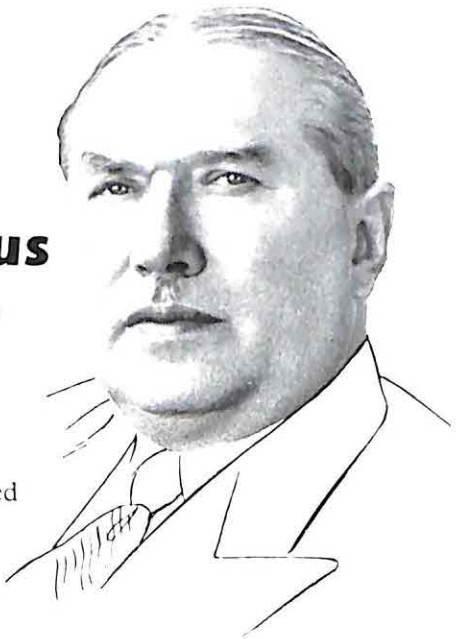
The Director and Head Chef Instructor of the Scottish Hotel School Mr. Dutron & Mr. Renolds say—
"We recommend

Jackson Electric Cooking Apparatus

for Commercial Cooking"



"Jackson Electric Cooking Equipment is installed in our main kitchen. In the training of Student Chefs economy and cleanliness are of paramount importance at all stages, and we find that Jackson Equipment is second to none."

For practical running costs note what Mr. Walton the proprietor has proved at the Regent Hotel, Oban . . .

31,895 HOT MEALS SERVED
AT THE REGENT HOTEL, OBAN
13,770 Units consumed=
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Clean Plates make Smiling Faces!

Fine Foods specially packed for **Schools** and **Catering Establishments**

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OUR SERVICE : FACTORY-FRESH as required in handy containers, 1 lb., 7's, 28's, 56's, 112's

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ESSE Heavy-Duty Cooking Equipment made by Smith & Wellstood Ltd (Proprietors of the ESSE Cooker Company) Bonnybridge Scotland

You'll be glad you installed

G.E.C. fluorescent fittings

—specially suitable for schools

Don't miss these G.E.C. fittings for your fluorescent lighting. Every type has been designed with some particular job and its problems in mind. These models have been tested and proved by actual use on a very wide scale. Virtually every problem that can arise has been met, studied and answered.

Add highly competitive initial cost, low running cost, outstanding ease of installation and maintenance; you will understand why so many in every trade and profession praise G.E.C. fittings as the ideal answer to their fluorescent lighting problems.

For the best results always use Osram tubes.

Economical to buy and operate

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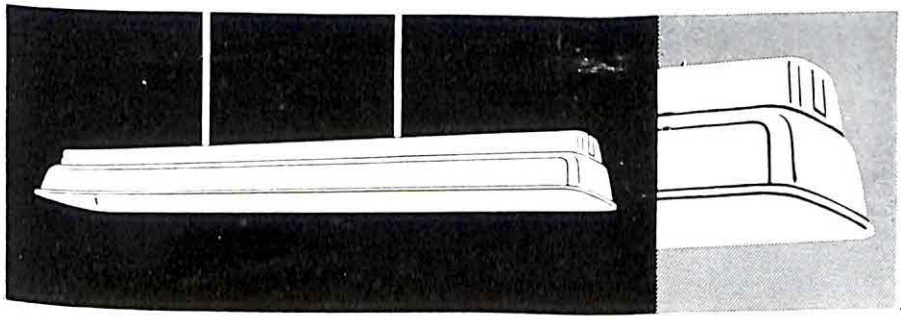


F 62064 one light
£12 · 5 · 0
TUBE EXTRA

F 62066 two light
£17 · 3 · 0
TUBES EXTRA

Designed for efficiency

The reflector is made from translucent white opal Perspex. This gives a very agreeable low brightness external appearance and a well lit ceiling.

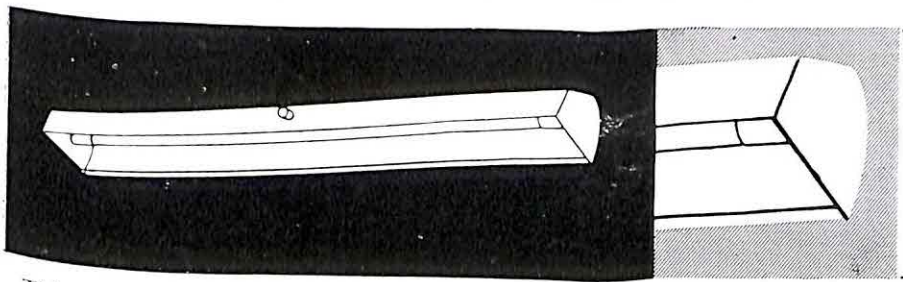
One-man maintenance

The assembly has been planned so that the parts of any installation can be detached or replaced with ease by one man without an assistant.

Suspension

The top chassis containing the control gear may be suspended in three ways:

(a) From conduit suspensions straight into the fitting at 24" centres
(b) By conduit or chain at any suspension centres
(c) By screwing direct to the ceiling



F 62076 one light
£12 · 1 · 0
TUBE EXTRA

This fitting has been specially designed to illuminate vertical surfaces, such as those of maps or chalkboards. It is shaped to spread clear, restful, dazzle-free light. The exterior finish is in cream. An easily removable anodised aluminium reflector is provided and the unit is suitable for direct ceiling mounting or pendant suspension.

● *The General Electric Co. Ltd., Magnet House, Kingsway, W.C.2*

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For 26 years this scheme arranged by us has coped successfully with the problem of remitting fees when pupils are absent. Most I.A.P.S. and Public Schools numbering over 1,500 have been using this scheme for many years. It is now an institution and up to date claims amounting to over £1,500,000 have been paid.

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Specially designed by us to suit the requirements of schools in the light of experience over 20 years. Combines all essential school insurances such as Fire, Burglary, Employer's Liability, Legal Liability and Loss of Profits in one document. It costs less to insure this way and the protection granted is much wider.

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London Office:
85 Gracechurch Street, E.C.3
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THE EDUCATIONAL ENDOWMENT PLAN

for the provision of fees at Preparatory and Public Schools, Universities, etc. This plan has been arranged to lighten the burden of school fees for parents who pay out of income and to ensure fees for the full period of a child's education.

The advantages to the Parent are:-

1. SPREAD-OVER OF PAYMENTS

   The cost is spread from the inception of the policy until the child *leaves* school or university.

2. LOWER COST AND MORE SECURITY

   The total cost of a child's education is less, even though, should the parent die, no further premiums are needed and the payment of fees is guaranteed.

3. INCOME TAX RELIEF

   is granted on payments made by the parent.

THE SINGLE PAYMENT PLAN

By which the School Fees can be assured by a single capital sum paid in advance, either before the child goes to school or during the child's school career.

The advantages of this Plan are:-

1. LOWER INITIAL COST

   The capital sum required is less than the actual fees.

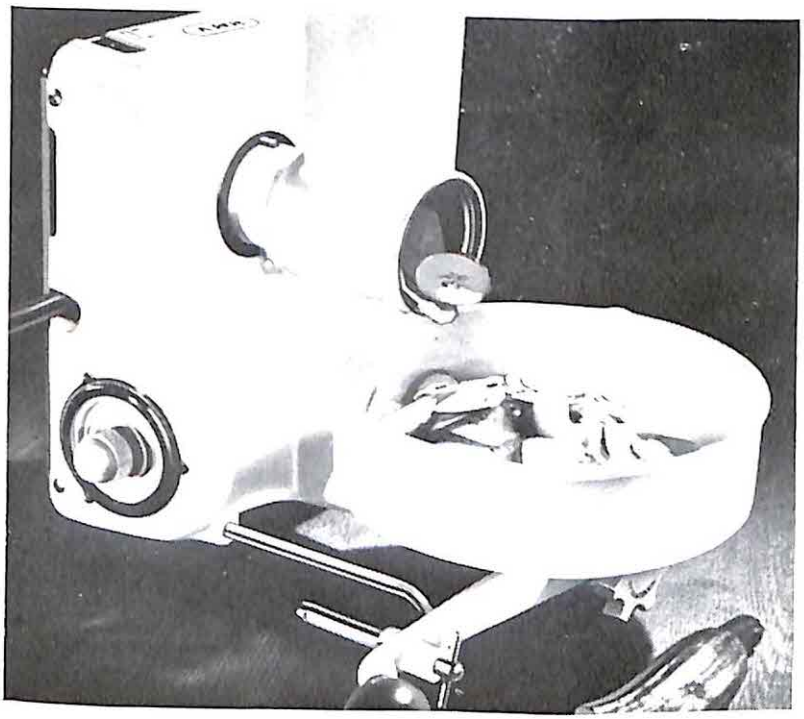
2. SECURITY

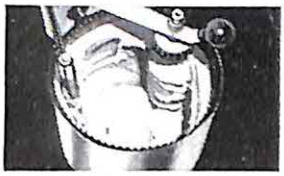
   The termly payments are of guaranteed amounts, and cannot be affected by capital depreciation.

The Plan can either be operated by the School or individual Bonds can be arranged for parents.

For fuller information apply to:-

THE I.A.P.S. TRUST
85 Gracechurch St., London, E.C.3

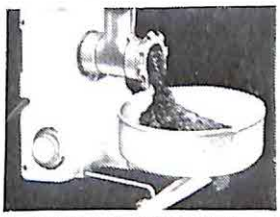




MIXING

GRATING · SLICING

WHISKING



MINCING · GRINDING

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Does a dozen jobs . . .

. . . far better—far faster!

This simple-to-operate H.M.V. Food Mixer is worth three extra pairs of hands in catering establishments of moderate size. With the necessary equipment, it does the dozen jobs at greater speed than the most skilful personnel. It mixes, shreds, grates, emulsifies, with precision and consistency unmatched by any other methods. For example, when used for slicing cucumber, the first and last slices will be of identical thickness, and the operator does no more than feed in the complete cucumber and press the operating button. The machine is finished in easy-to-clean white enamel and, wherever necessary, working parts are of stainless steel. Mixing bowl capacity: 6¼ Imperial quarts. Voltage: 200 250 AC/DC.

FREE SERVICE TO USERS *Arrangements have been made with the Good Housekeeping Institute to provide a special Culinary Advisory Service to users of the H.M.V. Food Mixer.*

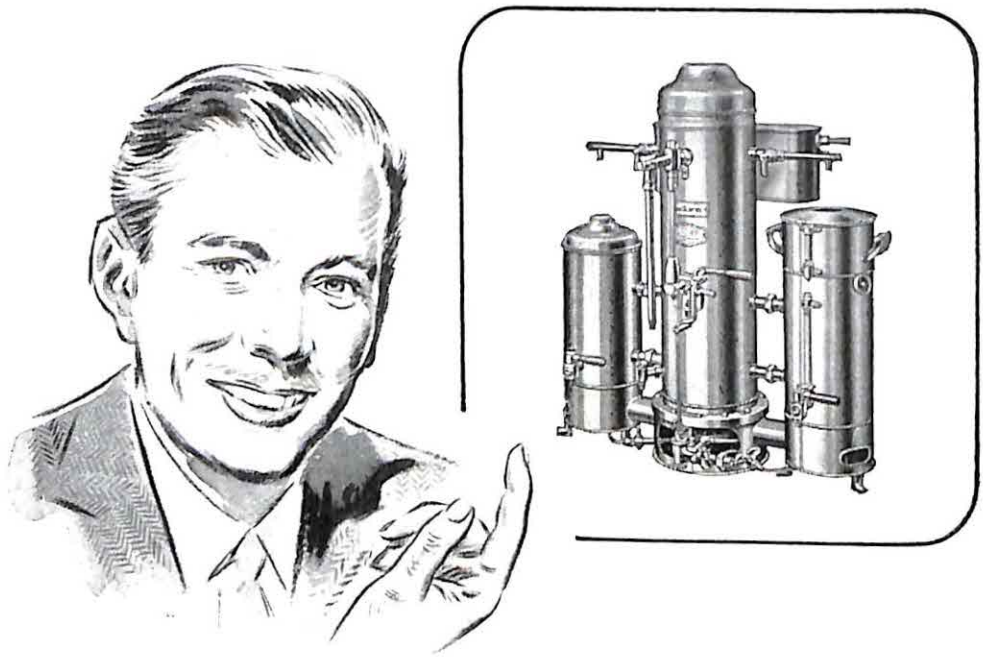
H·M·V

FOOD MIXER

BASIC MACHINE, MIXER & MINCER 39 GNS

H.P. Terms, deposit from 13 Gns.

For a personal demonstration and further information please write to
FOOD MIXER (DIVISION S.C.), E.M.I. SALES AND SERVICE LTD.,
HEAD OFFICE, HAYES, MIDDLESEX



"I took the long view . . .

. . . and I'm glad I did. Over the years this 'Jackson' has repaid me handsomely, giving steady dependable service with no maintenance troubles, and working at peak efficiency all the time. It certainly pays to call in specialists on a job like this."

There's a 'Jackson' for every catering need and all methods of heating. For all school and college catering 'Jackson' Boilers are supreme.

Jackson Boilers

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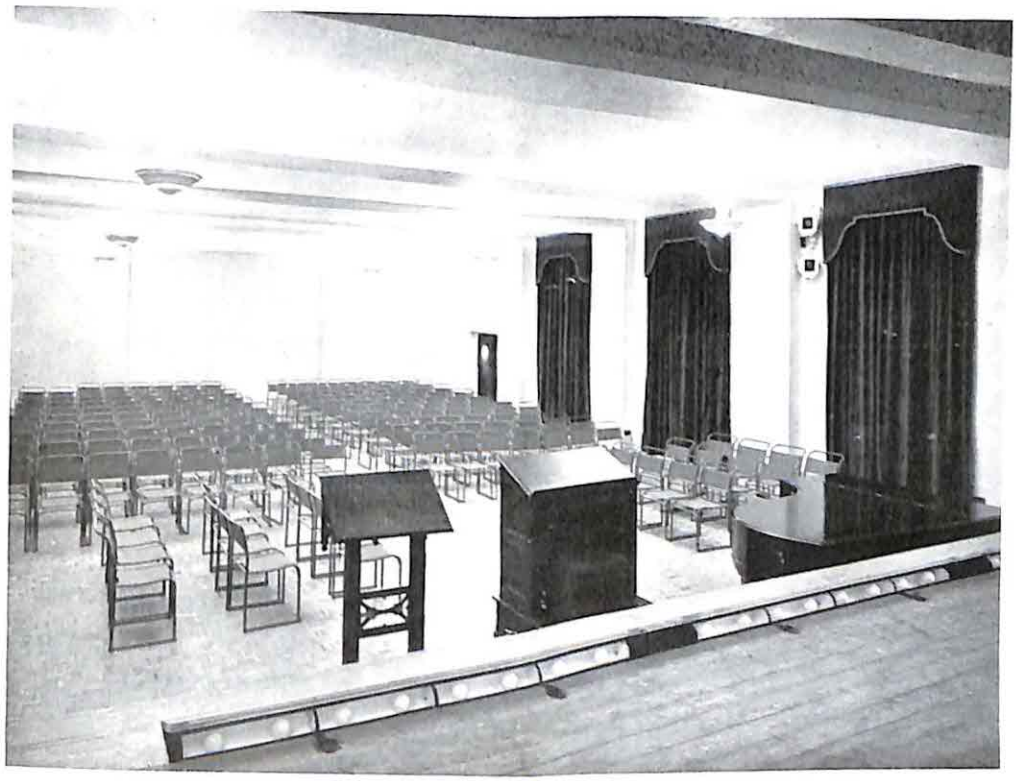
Showrooms: 25 Victoria Street (entrance in Abbey Orchard St.), Westminster, S.W.1; 219 West George Street, Glasgow; 28 Deansgate Arcade, Manchester; 9 King Street, Leeds; 202 Corporation Street, Birmingham; 142 Victoria Street, Bristol.

SAVE YOUR SIGHT—BY BETTER LIGHT



Assembly Hall, Royal School for the Daughters of Naval and Marine Officers, Haslemere. Architects: Messrs. Bostock & Wilkins.

The above illustration shows how perfectly, and at the same time economically, a hall can be lighted with glareless, shadowless and evenly diffused light, by the G.V.D. SYSTEM, which treats lighting as a means to an end, that end being to enable you to see your surroundings with perfect ease and comfort, and not to make your room look like an electricity fittings show-room.

Whenever you wish for really good lighting, remember—THAT is what G.V.D. stands for—therefore call us in to advise you.

Whatever type of lighting is wanted, whether it be laylights, cornice lighting, ceiling boxes, wall brackets, pendants, standards, illuminated panels, pelmet or niche lights, G·V.D. can carry it out in the most efficient, effective and economical manner.

We neither use no recommend fluorescent lighting, but only the ordinary tungsten filament lamp, our aim being to use the minimum equipment necessary and to avoid the high intensities so commonly advocated to-day. In stressing this point, it is not without significance that in a recent Ministry of Health report it was disclosed that nearly *27,000,000* pairs of glasses had been supplied during the first five years' work of the National Health Service.

The G.V.D. SYSTEM is eminently suitable for schools, colleges, lecture halls, class-rooms, libraries, dining rooms, offices, canteens and laboratories as well as the home, and in fact wherever good, even and glareless, yet economical lighting is required.

For further particulars please apply to:

G.V.D. ILLUMINATORS

29B TORRINGTON SQUARE, LONDON, W.C.1 'Phone: MUSeum 1857

Domestos & Stergene

These two products, either individually or in combination, provide all the cleansing aid likely to be required for maintaining a state of immaculate cleanliness in public buildings, offices, hospitals, schools, institutions, etc. High concentration makes them exceedingly economical and very small quantities are sufficient for all cleaning operations.

Domestos and Stergene are particularly recommended for canteens and for all catering establishments and **"Catering Hygiene"** explains how they may be used to implement the recommendations of the Catering Trade Working Party ; a copy will be forwarded on request.

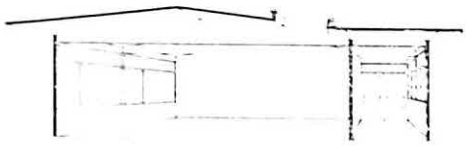
"Catering Hygiene" summarises the recommendations of the Catering Trade Working Party appointed by the Ministry of Food and shows how those recommendations may be put into practice in a simple and economical manner.

DOMESTOS : A powerful hypochlorite possessing disinfectant properties of a high order. The most efficient sanitary cleanser available; its use in public and staff toilets and lavatories being an assurance of scrupulous cleanliness.

STERGENE : The remarkable liquid soapless detergent so successfully used in canteens throughout the country. Ideal for dishwashing by machine or by hand; will not harm operatives hands. Unsurpassed as a grease remover.

DOMESTOS AND STERGENE MAKE LIFE CLEANER

DOMESTOS LIMITED, INDUSTRIAL DIVISION, COLLEGE WORKS, NEWCASTLE UPON TYNE, 6.



Classroom and corridor, using units of 24 ft. span (pitched roof) and 6 ft. span (flat roof) respectively.

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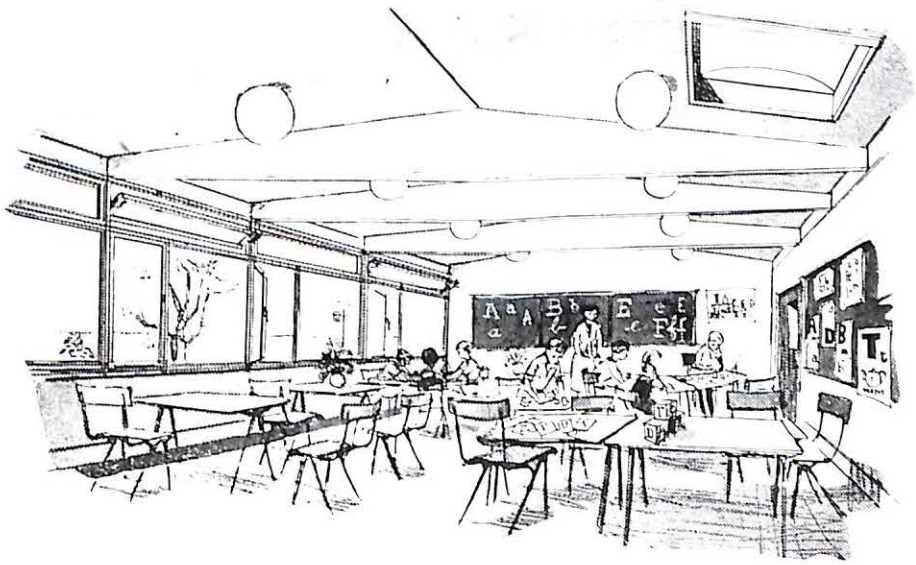
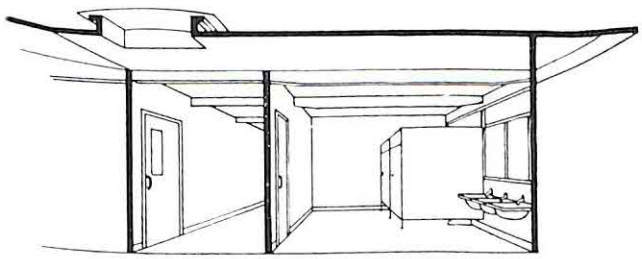
Permanent schools of modern design at far less cost

The Medway Mark IV system will provide permanent schools of any size to suit any site, schools which are attractive and efficient from every point of view. Despite the flexibility of the system the cost of the Mark IV schools is appreciably less than any other building method.

Low cost has been achieved by advanced production methods and by a design which minimises site-work expenditure. Technical staff are available to co-operate freely with Local Education Authorities during planning. Supply and erection of shell buildings can be undertaken anywhere in Britain.





A 12 ft. span (flat roof) addition to the 6 ft. access corridor. In this case the corridor is provided with curved "Perspex" ventilated roof light.

MEDWAY BUILDINGS AND SUPPLIES LIMITED

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The name always linked with good Tea-Making and Service Equipment

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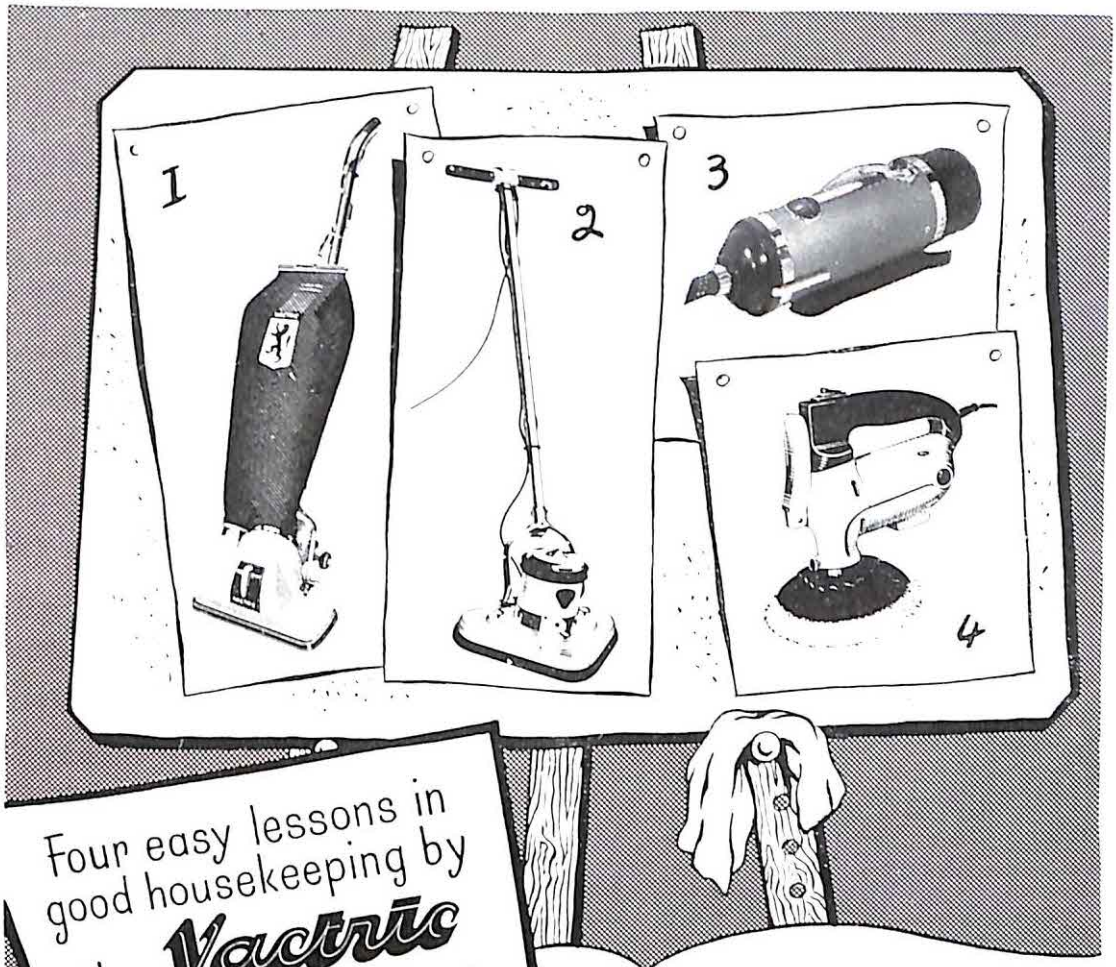

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This upright model is attractively styled in contrasting maroon and golden dimenso. Incorporates Vactric 'Vibro-Action' which 'flutters' out the deepest dust and dirt from carpets. Adjustable for different thicknesses of pile and cleaning under low furniture. Women especially appreciate its lightness—it weighs only 15 lb

LESSON 2 **VACTRIC Electric Floor Polisher**

Three brushes, two revolving clockwise and one anti-clockwise allow the polisher to move easily over the floor. No pushing—you just gently steer. Gives a rich gloss in minutes instead of hours. Triangular design of base makes polishing of corners easier.

LESSON 3 **VACTRIC Model W.202**

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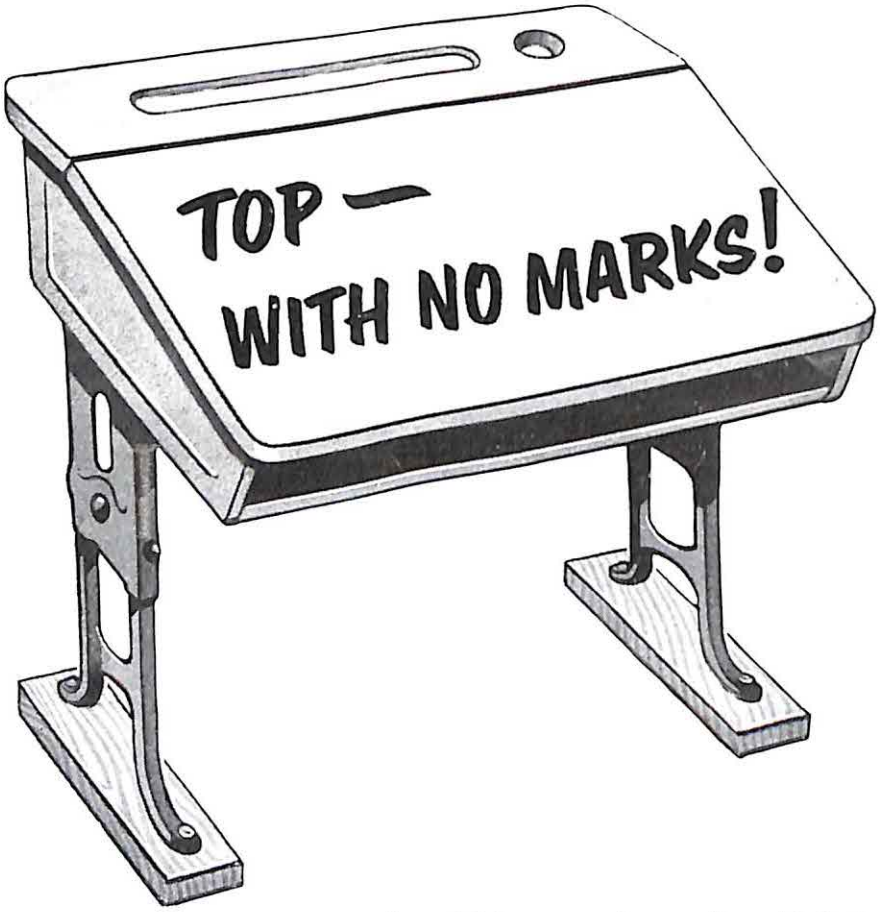

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A PROGRAM FOR THE PREPARATORY SCHOOLS

How can the independent schools safeguard their future, recently so severely challenged? By proving their worth to the challengers, was Miss Florence Horsbrugh's advice to the Incorporated Assoc. of Preparatory Schools at their meeting in Oxford. For their guidance she suggested a two-point plan of action . . .

IN 1952 naturally most of my time had to be given to the problems of the public system of education. But my statutory duty is not merely to see that local authorities do their work efficiently. The Minister of Education is charged, by the 1944 Education Act itself, to promote both the education of the people of England and Wales and also—to quote the exact words of the statute—"*the progressive development of institutions devoted to that purpose.*" I don't much care for the word "institutions," but I have no doubt at all that the independent schools are as "devoted" to the education of their children as are the grant-aided schools, and that I must therefore look to their "progressive development." This summer I have visited several well-known independent schools. I feel that I want to know more about preparatory schools than I do.

There are some people who, while they may not disbelieve in the devotion of preparatory schools to education, certainly disparage the contribution which your schools can make to its advancement. I am not making a political speech to-day, but we have most of us seen a document entitled "Challenge to Britain." The paragraphs in this document dealing with education should be studied, it seems to me, from the educational point of view, leaving out entirely any party political bias. The authors of this pamphlet say in it that "the existence of a small number of fee-paying 'prep' schools, and 'public' schools with small classes and high social prestige, alongside our overcrowded and under-staffed free system of education, makes a mockery of the ideal of equality of opportunity." They do not propose to abolish fee-paying schools in the first instance, but their long-term plan is to take over the best of the "public" schools and independent *day* schools. And in the meanwhile, they say, "we shall deal with the large number of private schools which provide only a travesty of education, often in bad premises and with largely unqualified staffs." Of course there are *bad* schools, but might it not have been better to qualify this sweeping statement by adding that a very large number of independent schools, having been inspected by H.M. inspectors, have been recognised as efficient?

No threat to equal opportunity

I find it difficult to believe, myself, that, because about half a million children are being educated at their parents' expense in independent schools, we are making "a mockery" of the equal opportunities offered *free* to 6,000,000 boys *and* girls in the 29,000 schools grant-aided from public funds. And I do not suggest for one moment that even the writers of this leaflet themselves believe that preparatory boarding schools provide "only a travesty of education." Anyone who knows anything about "prep" schools knows also that such a generalisation is false. But, of course, these writers are entitled to their own opinions, and I merely want to dissociate myself from them and to assure you that I don't agree with them. I believe that there is a proper

(Continued on next page)

place in our educational system for the independent school, whether it be "public" or "prep." And it seems to me that the framers of the 1944 Act, and Parliament which approved it, believed that too. They certainly provided for the registration and control of independent schools, but they gave these schools the protection of a Tribunal which would hear complaints preferred against them by the Minister. And that Tribunal would be constituted by the Lord Chancellor and the Lord President of the Council. In other words, the Act itself envisages the continued independence of the independent schools. And because I believe that this view is right, I included in what is now the Education (Miscellaneous Provisions) Act, 1953, provisions empowering local education authorities to pay tuition and boarding fees for children attending independent schools in certain circumstances.

The value of variety

But I don't rest my belief merely upon *statutory* provisions. I base it upon the value of what the independent schools can give and upon the desirability of permitting variety rather than enforcing uniformity in our educational system. These beliefs are now challenged, and the independent schools, including your preparatory schools, must take up the challenge and prove their worth in order to retain support. Your schools are facing a remarkable situation. Never before, I should imagine, have your fees been higher than they are now. And yet never before have you found more parents prepared to pay them. How long this state of things will last I just don't know, but I am quite sure that the future of preparatory schools will largely depend on two things:—

First, the stability and permanence that they can create for themselves; and

Second, the sense of responsibility and self-reliance that they can develop in their boys.

Gaining parents' confidence

As to the first, the future of the schools depends, I suppose, as much as anything on their success in attracting the custom of the relatively small proportion of parents who are both able and willing to pay the comparatively high fees they charge. That willingness, at any rate, must be related very largely to the confidence which the schools can inspire, and parents are unlikely to feel confidence unless the schools themselves feel it. For that reason I am interested to find a striking example of initiative and self-confidence in the formation of the Preparatory and Independent Educational Trust. The objects of this Trust, as set out in its Memorandum of Association, imply a very heartening faith in the future and permanent value of preparatory schools, and I am glad to find your president's name among the "subscribers" to that Memorandum. I know, also, that he shares my satisfaction that the objects of the Trust extend to the education of girls as well as of boys.

Training scheme for teachers

Another instance of the sort of self-help which I welcome is the training course for preparatory school teachers, which is being run under the auspices of your Association by Mr. G. W. Paget, formerly one of Her Majesty's Inspectors of Schools. That certainly shows an appreciation of a fundamental point, which is that the education of our children depends upon the teachers who give it. I know, of course, that many preparatory schoolmasters, who have had no formal training as teachers, are qualified by years of experience. On the other hand, there is a succession of younger men who flit in and out of the schools on their way to and from the university or National Service and have neither experience nor formal training. These are the ones who will, I am sure, benefit particularly from the training course.

Help the child to self-reliance

My second point is the need for opportunities in preparatory schools of training boys to exercise responsibility and self-reliance. I don't suggest that this need has escaped your notice. My interest is in how you are going to provide these opportunities.

In all your discussions during this Conference I take it that you will have in mind that your main job in preparatory schools is preparing your boys for entry into public schools, for the next stage in their education. To a much smaller extent it may be for entry into the Navy and the Merchant Service. Whatever the preparation is *for*, I think you will be asking yourselves: "Is this enough? What more can we do?" I am not going to discuss the curriculum or the academic standards necessary for the Common Entrance examination. What I do want to stress is the necessity of giving all your boys appropriate opportunities to experience responsibility, to use initiative and to make decisions for themselves.

Most of your schools provide plenty of these opportunities out of working hours, and they are helped in this by their very pleasant surroundings and large "grounds," which the maintained schools don't have. But I am told that very often it is only the older boys who really benefit from these opportunities, and I wonder whether more could not be done to give the "juniors" and the "middles" rather more scope for the exercise and development, outside the classroom, of the qualities which I have mentioned. And what about inside the classroom? There, I believe, you will find that there is room for giving *all* boys more chances than many of them get to build up self-confidence, self-reliance and self-help.

Dangers of the Welfare State

I don't use those words in their "selfish" sense. Children are natural egoists, and it isn't their self-interest that needs to be stimulated. But the more I see of our educational system, the more impressed I am by the great danger with which the Welfare State threatens our children. We are so preoccupied with the importance of doing things *for* boys and girls, that we run a serious risk of diminishing their normal ability to do things for themselves and for others. We are constantly talking about the "service *of* youth" in terms that suggest we mean only "service to youth." I suggest that the emphasis, in our schools and our conferences, ought to be upon "service *by* youth." For effective service, in any walk of life, one must have a measure of self-confidence. By that I mean, not self-assertion, but a firm trust in one's capabilities and an enterprising temper. A child also needs to rely, not merely upon the example and precept of his teachers and companions, but upon his own experience and fund of initiative. And he needs to be able to help, not only lame dogs over stiles, but himself in solving problems and surmounting difficulties *for* himself.

No "corps d'elite"

My point, in short, is that preparatory schools, with their relatively small numbers and comparatively large staffs, with their valuable amenities and the "boarding" advantages which many of them provide, are in a most favourable position to give practical effect to the principles which I have ventured to propound. I am not urging the preparation of a "corps d'elite," or the production of a gang of little "führers." What I am thinking of is the need to give even young boys the chance to do things for themselves without detailed guidance or supervision, so that they can have the thrill and satisfaction of exercising some responsibility or achieving something on their own. I believe that this can be, and is being done, for some, on the football field and on the cricket pitch and in the swimming bath and in outdoor and unsupervised play and interests of various kinds. But I also believe that the 8- and 9- and 10-year-olds could do with more of it in all those "fields," and that every boy needs some of it if he is to read and write and spell his own language, learn another or solve a problem. In other words he has to learn to educate himself.

Much of what the Outward Bound Trust seeks to do for older boys is very much what I am asking you to do for those who are under 14. The Trust's schools at Aberdovey and Eskdale seek to develop "the whole man." What preparatory schools should aim at is the development of "the whole boy." If, both at work and play, a boy is to achieve effective self-discovery and self-expression, and self-discipline, he should have opportunities "to seek, to serve, to strive and not to yield." And if you can help your boys to develop these qualities as well as to obtain the academic standards required for entrance to the public schools, I am sure that the preparatory schools will have proved their worth.

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continuing

LESSONS FROM THE NATIONAL HEALTH SERVICE

may have this truth in it—there must be some central direction—but the service is what we make it and the public can be criticised as well aa those in it. The report states: "Doctors should make it their care to see that their patients have all the information that can be given about their illness and about their prospects. Relatives should be told how they can most conveniently learn about a patient's condition. When they make enquiries they should be given as much information as possible."

The pendulum may go too far in the future as it did not go far enough in the past. Too much information usually produces too many fears. Patients should be given a considered judgment, otherwise doctors will waste far too much time, and time is valuable.

THE NATIONAL HEALTH

Dr. R. E. Smith, Consulting Medical Officer, Rugby School, sifts the annual report of the Central Health Services Council for guidance that can be passed on to the School Doctor.

ONE of the provisions of the National Health Service Act was that there should be a Central Health Services Council which should report annually to the Ministry. The latest report ordered by the House of Commons to be printed on July 6, 1953, contains several recommendations which readers will find worth while considering.

Communicable diseases

The Minister has noted that in several outbreaks of communicable disease, especially food poisoning, hospitals have neglected to consult the local Medical Officer of Health and that other valuable expert, the Director of the Public Health Laboratory. Do we in schools sometimes fail like the hospitals? If we do it is probably through ignorance, for certainly once that service has been engaged it is likely that, should the need arise again, it will be quickly sought. By great good fortune, in my first term at Rugby, in June, 1931, the forerunners of the Public Health Service investigated the first epidemic I encountered. It was one of Sonne Dysentery.

In this epidemic 21 boys had symptoms of gastro-intestinal upset and from nine the organism *Bacillus dysenteriæ Sonne* was obtained.

Help from the bacteriologist

The history of one boy will show the value of bacteriology: "Male, aged 14, could not accurately date the onset of his symptoms, but certainly had diarrhœa on the 16th. He felt sick on the previous day. He had on the average two diarrhœic motions *per diem* until the 23rd, and on no day had he passed a formed motion. On admission (23rd) he had a slight headache, a temperature of 100.2° F., pulse-rate 70. The next day he passed a normal stool, but the Sonne organism was grown from a loose motion he had passed on the 23rd. He was put to bed and from then passed normal stools."

Without a positive culture, he might well have been sent back to school too early and no precautions taken, the chief of which should be hand hygiene after defæcation.

Solitary cases like this, which are communicable, occur where the importance of bacteriology is greater than in epidemics.

Looking back on this I can say that I received the utmost courtesy from Dr. Scott as I did also from his colleague, Dr. F. Griffith, who were running the service then.

Call in the Medical Officer

Since then laboratories have been established in many places and the directors are very keen to help. They are not the 9.30-5.30 type who finish promptly at 12 noon on Saturday. In the last school epidemic of food poisoning which I had to manage, the bacteriologist in charge came over from Coventry to Rugby (12 miles) on a Saturday to see the patients and collect specimens, and rang me on the Sunday to give me preliminary reports. The value of the knowledge of what germ is at work will probably increase as new antibiotics are discovered which are lethal for particular organisms. As a member of the Ministry of Health staff said to me: "If the Medical Officer of Health is good enough for the public, he should be good enough for everybody." He may indeed by sensible sug-

SERVICE

gestions prevent trouble and his advice when he speaks with the authority of the Ministry of Health goes far to get essential improvements in kitchens, etc.

The influence of the Ministry of Health is best exemplified by the response the public made to their exhortation that "Diphtheria is dangerous, get your child immunised."

Before the Ministry of Health gave immunisation their blessing the number of boys immunised at Rugby was 50 per cent although I used every inducement to try and get them immunised. Afterwards it rose to 90 per cent.

Possibly the time for a "Food handlers should have clean hands" campaign is ripe or, to put this more specifically, that *next* to every kitchen there should be facilities for efficient hand washing.

Visiting

The Council's view on visiting can be summed up by saying: "Many hospitals might adopt a less rigid attitude." This quotation is taken from the section on visits to children in hospital. Those very few hospitals who discontinued daily or frequent visiting did so because of its unsettling effect but also because it caused children to be overfed.

Parents visiting schoolboys often ask: "Is there anything I can bring him?" A visit, empty handed, seems wrong to the visitor. Fruit is always welcome but it is probably better given to staff to keep, if it is in any abundance. A book is sometimes more appropriate than flowers. Many schools, of course, have libraries; the sanatorium or "infirmary" also has them and they are usually kept up-to-date but a mother, by bringing a newly published book (on mountaineering, the theatre, or an autobiography, for example) may provide a luxury which will last longer than fruit or flowers.

But to return to visiting . . . schools, like hospitals, must have rules. Boys and girls sufficiently ill to require a parental visit require rest mid-day so that 2.0 to 3.30 should be devoted to this. Similarly they want to go to sleep early. Seven o'clock is late enough for parents to leave, for the boy has to have his supper, his toilet attended to and his bed made, and, of course, he is not the only one, although we realise that to the parent he is the most important. But parents should always be welcome and even these rules should not be too rigid.

There is a special type of hospital which deserves consideration, i.e., the long-stay children's hospital where such diseases as surgical tuberculosis and acute rheumatism are treated. Visitors have to travel long distances and as these hospitals are often in some inaccessible spot, often require a tedious bus or train journey followed by a long walk. Even so, visiting here should be made as frequent as possible. I know one such hospital where the rule was, only a very few years ago, once a month. The authorities relaxed this to once a fortnight but once a week would be much better.

Ear-phones

"Ear-phones or pillow-phones should replace loudspeakers in wards."

Loud-speakers in wards should never have been put in as they have been by many hospitals out of free monies. Schools could have told them that!

Tuberculosis

In the first pages of the report medical research is considered in relation to the National Health Service. No one will deny that need, either in the National Health Service or in the schools. But "tuberculosis" illustrates the need for applying what research has already taught us; that it is an infectious disease, that it can be diagnosed early by skin tests (i.e., the application of jelly containing tuberculin and not necessarily infectious), that early diagnosis and treatment is life-saving, and the discovery of early cases may reveal the spreader. I still think that Norway, with its compulsion, has taught this bulwark of freedom that if we are really intent on stamping out tuberculosis we should voluntarily and completely follow her example.

Epilogue

The criticism that the National Health Service is an autocratic institution driven by big Whitehall wheels and that the hospital management committees are little cogs

(Please turn back to page 431)

PEOPLE

and events

A DATE, this month, for the school matron's diary: at Seymour Hall, Seymour Place, London, W.1, October 12 to 16, there will be the London Nursing Exhibition.

For the music master:—

October 10, Rhyl Open Choir Festival;
October 26, Blackpool Musical Festival.

The Dairy Show, at London's Olympia, takes place from October 27 to 30. A date for schoolgirls (the world of the horse and the pony now seems to be an almost exclusively feminine one): Horse of the Year Show, October 7 to 10, at Harringay Arena, London.

A date when sports masters may be in Town: October 21, when England plays the Rest of the World at Soccer, at the Empire Stadium, Wembley. This match is the highlight of the Football Association's celebration of their 90th year.

The Inter-County Swimming Speed Contest is held in Birmingham on October 17.

* * *

A new booklet has been issued by the Institute of British Launderers on training classes which are to be held at the Institute's headquarters (16-17 Lancaster Gate, London, W.2) during the present academic year.

* * *

The death was announced last month of Miss Alice Martha Caddow, formerly vice-principal of the National Training College for Domestic Science.

* * *

The appointment of Professor T. M. Knox to be principal of St. Andrews University recognises the part he has played, as acting principal, during the difficult times of negotiation, in Parliament and outside, following on the report of the Tedder Commission.

* * *

It is not always easy to direct girls who show an interest in, and an aptitude for, what is rather vaguely called "catering": the temptation is always to suggest work in a school and, though school-work has its advantages, not every girl seems suitable or possesses the particular qualities school-work demands. It is of interest to note that Lyons Teashops particularly wish to bring to the attention of schools the existence of their training scheme for potential manageresses. They say that the prospects of high executive positions are good for trainees. Details of this scheme may be had from 2B Granville Place, Orchard Street, London, W.1.

* * *

Mr. J. N. Britton, known to many schoolmasters as educational editor with the firm of John Murray, Publishers, Ltd., has recently taken up an appointment as lecturer in education at Birmingham College of Art and Crafts.

* * *

The Kennedy Professorship of Latin at Cambridge became vacant on the first of this month by the resignation of Professor Mynors.

* * *

Last year the teaching of Latin was begun in 32 secondary schools in Russia, and a recent decree of the Ministry of Education seems to indicate a considerable increase in the teaching of Latin there.

* * *

It was announced at the Fourteenth International Scout Conference recently that the number of Scouts in the world has reached the record total of 5,561,993—an increase of 401,846 in the past two years. The next world jamboree will be held in Canada in 1955 and the golden jubilee jamboree will be in Britain in 1957.

* * *

All fathers know that they may be called upon to take part in a fathers' race, or turn out for a Fathers' Cricket Eleven, at their sons' preparatory schools. What at least was news to us was that mothers and sisters might be called upon to provide a sporting hockey fixture. Winchester House School, near Sevenoaks, Kent, have such a fixture. A gallant concession was made to the ladies. "The visitors," says a report we have seen, "played downhill throughout."

In this month's

ALL THINGS CONSIDERED

. . . F. A. V. Madden plans to entertain a distinguished visitor—the Minister of Education—at his next speech day . . . and ponders on the miseries of speech days in general.

BY now the wheels are turning and the new school year is under weigh, or is it way? A scientific colleague of mine used to explain which it was and why. He solved *Torquemada* every Sunday morning before breakfast and I listened to him with great respect, but I always forgot and I have forgotten again. I suppose I should really entertain more generous feelings towards my pupils who have as usual forgotten everything during the summer holidays, but why must they add insult to injury by denying that they have ever heard of those elementary facts that have been dinned into them for years? This, however, is no mood in which to face the brave new year in education. Things are looking up. The Minister of Education has been elevated to the Cabinet and she is coming to our speech day this very month. This, I must say, rather frightens me. Speech days have always frightened me and they always will. The more distinguished the guest of honour the more nervous one becomes; the more ambitious becomes one's program, and the greater becomes the risk of failure. When I was at school we had no speech day. We did have some competitive prizes, as I can prove, but we had no speech day. Boy-like I accepted this as being in the nature of things. By no means did I realise what a merciful dispensation it was.

I SUPPOSE opinions differ pretty widely as to what form a speech or prize-day can take. Some people approach it from the unusual angle that the pupils should enjoy it. Paradoxically these might enjoy it more if the prizes were awarded to the staff. The sight of an old so-and-so, "the Himmler of the Lower Fourth," tripping up the steps to the platform to receive the prize for general welfare of the school would more than make up for past ordeals. Others would hold that the main purpose is to impress the distinguished personage who has consented to preside. Others regard it as the day for convincing parents that all is more than ever remarkably well. Nobody is likely to worry about whether the staff enjoy it. This is as well for whatever happens there is practically no chance at all that they will. The pupils may, I think, suppose that they do, but boys are notoriously unperceptive about the finer feelings of their masters. Perhaps enjoyment does not come into it at all, though clearly it should do. The truth seems to be that everybody is out to impress. The pupils want to impress their parents. The parents want to impress each other. The head wants to impress the governors. The governors want to impress the distinguished visitor. The distinguished visitor wants to impress everybody, or is so distinguished that he has done that already. There is quite a chance that a certain amount of happiness will be generated by a limited success being attained in all these objectives. I myself have generally remained fairly cheerful at my own and other people's speech days until I hear those fateful words: "And now a word to those who have not won prizes." At this point a deep depression invariably settles upon me which only a really first-class tea can subsequently dispel.

WHAT form should a speech day take? My own view is that it should represent so far as opportunity allows the activities and interests of the school. To this end the boys must be brought into it as much and as often as possible. This will mean a lot of hard work for them and a lot of time spent on rehearsals of various items, but in my experience they will not grudge this if the results are successful and thereby bring credit to themselves and the school. The same applies to the staff who will have to work even harder (and will, I fear, enjoy the great day even less!). The speech room proceedings should never take more than an hour and a half. The one item you cannot play with is the actual

continuing
ALL THINGS CONSIDERED

prize-giving but this can be considerably expedited by arranging for all the prize-winners to come out and stand in a line in the order of awards the moment the prize-giving is to begin. Arrange for a proxy to take the place of any absentee. Refrain if possible from treating the audience to a life history of each winner before calling out his name. You will have to make a speech or report yourself and the length of this you can control. It is less easy to control the other speakers but at least you can try. A tactful way of doing this is to supply each with a working program which by timing the items will indicate to each how many minutes they should occupy. My last speech day chairman was an M.P., an admirable man who whispered to me just before his speech: "What shall I say and how long shall I say it for?" "Say what you like," I replied, "and for ten minutes." He looked at his watch, rose, made an admirable speech, sat down, looked at his watch and remarked with a gleeful smile: "Ten minutes dead." We cannot all be as lucky as this, but as I have indicated we can try.

IF the school pays any particular attention to music (as nearly every school does) the thing to do is to intersperse the platform speeches with various musical items. My own program generally runs something like this. We open with a song for massed voices. This should be something cheerful and invigorating. Then comes my annual report followed by another song perhaps by the choral society, perhaps by the whole school singing some French folk songs. Then follows the guest of honour's address and then another musical item before the prize-giving. There would probably in all be room altogether for about five of these musical items which last three to four minutes each. It gives an opportunity for a solo instrumentalist if there is one good enough and there is always the school song to end with. It should be possible, starting at 2.30 p.m., to be finished in time for tea at about 4 p.m. What I do is to allow about an hour for tea which gives the visitors time to inspect, if they wish, the school buildings and special exhibitions of work in the art room and the laboratory. I said that my idea was to give a picture of the activities and interests of the school and I should therefore now invite the visitors back to the speech room for a further program lasting about an hour. Roughly this would consist of about ten minutes by the school orchestra followed by an extract from a French play, or Shakespeare, or a one-act play. Last year we did Shaw's "Poison, Passion, and Petrifaction," which delighted everybody, especially the cast. I like to precede this if possible by an item from the youngest boys in the school. The aim throughout is to spread the interest as much as possible. Obviously the more boys you can involve the better for them and for the general *morale,* and the more visitors will find of personal interest. The cadet corps, whom I have not mentioned, are not forgotten. They have their moment of glory when they provide a guard of honour at 2 p.m.

IT is all very well to write about all this but I remain, as previously stated, rather frightened. And with the Minister coming! I do hope that *she* will enjoy speech day but . . . .

I WONDER how many school photographs are lying in how many drawers, trunks and chests, up and down the country, and, indeed, all over the world. Few young males, or older ones for that matter, can resist buying photographs in which they feature. Is it true also of the females? I rather doubt this. I find that ladies of my acquaintance, if shown a photograph of themselves, at any rate a photograph of the kind that I take, immediately beseech or command me to destroy it. Failing this, they take every means to obtain possession of it and destroy it themselves. Males, on

(Continued on page 454)

Commissioning a Portrait

. . . Not a subject that springs readily to mind as a problem of school management, yet one which nearly every school has to face at some time, when it is decided to grace the hall with a portrait of a Governor or Headmaster. What a portrait costs, where to find a suitable artist, and how to secure a good painting—these are the problems the author deals with in this article

WE don't believe, but we like, the story of the headmaster who (it is whispered) once had a number of neat plaques made, reading *On loan to the National Gallery*, and had them fixed in suitable places on the school dining-hall walls. "Much more impressive — and much cheaper than having the real thing!" he is said to have boasted.

When budgets have to be closely watched few schools can themselves be the patrons of portrait painters—who, like everybody else, are charging many more guineas than they did a few years ago. Usually, however, the payment for a presentation portrait comes from the donations of the many who wish to show their respect and appreciation for someone who has made a worthy contribution to a school's life.

It is hard on the Bursar, but . . .

Even though the cost of a portrait rarely comes out of a school's own funds, we do know bursars who have looked rather sadly at the gilt and canvas and have imagined that they saw an apologetic look on the face of the subject, particularly if they knew him well and he knew, only too well, the bursar's problems. The bursar almost deceived himself into hearing the ex-Head whisper, as he looks down from his frame: "I know, old chap. A hundred guineas. What couldn't you have done with that sum in a more positive, practical way! Still, the Old Boys insisted—you know what arrant sentimentalists all Old Boys are."

Undoubtedly, these days, schools do manage to steer the very worthy sentimentality—it is a feeling better than that—shown by Old Boys into practical channels. Cricket-pavilion clocks; a small garden; a handsome addition to the library with a special, commemorative bookplate — these, and other practical ways, are often used to expend the guineas contributed in piety when a beloved and respected member of a school community dies or retires.

It is a matter of opinion whether they are better ways of laying out the money than spending it upon a portrait or a commemorative window in chapel. It is not our intention here to discuss that point. We know that quite often the way a fund is to be spent is taken out of the headmaster's or the bursar's hands—only the work is left to him of spending it upon a portrait.

Like engagement rings, portraits aren't bought every day. It is a form of expenditure many of us know little about—one of the few forms. It may, then, be of help to discuss briefly the pitfalls that are likely to be encountered. Whatever we do, we want to do well; that is good management. And there can be no question about a good portrait becoming a valuable, worthy part of a school's fabric. Many of us can remember the fine faces in the portraits in Hall, at Oxford or Cambridge, better than we remember the faces of our contem-

poraries. A work of art needs no apology or justification; a portrait may be a luxury, but may we not live to see the day when a bit of luxury, a pleasure that cannot be measured by accountant's standards, becomes bad school management.

Very often the decision as to who shall paint a portrait rests with a small committee. Committee work, and a work (one hopes) of art, don't usually go well together. There's a tendency to play for safety that results in dullness.

Those stiff and bearded horrors . . .

The Art master may be an estimable fellow; he may even be the most suitable person to paint the portrait but, with all respect to him, if he were a portrait-painter it is likely that he wouldn't be teaching; he'd be making his living painting portraits. A suspicion of local talent is desirable and is certainly not unkind or unpatriotic.

The reason why so many stiff and bearded horrors look down with frozen distaste upon the present generation of boys at prayers or lunch, or have been banished to the darker corners of the school library, is because someone on the committee had a relative who, he believed, was quite a dab hand at a portrait. Or the Art master generously remembered someone who had been at the Slade with him who had painted a mayor or two with apparent success.

Not the art master or an old boy

The commissioning of a school portrait is not the occasion for localism. One of the Old Boys may be the obvious, and a first-rate, choice. Usually the sum available is enough to buy a first-rate man.

This seems the point to mention a story we recently read about Mr. Rank, the miller, the Sunday school teacher, and the film magnate. The board room of his cinema companies is as elegant as any film set: portraits hang upon the walls, including a new one of Mr. Rank. He was asked the name of the artist to whom he sat. The artist? So far as he knew, he hadn't sat to anyone.

In London there are a number of firms who specialise in "portraits" and vie with one another to catch the eye of boards of directors, school governors and other committees in search of a portrait. The whole thing can be very efficient and painless. Hand-painted, oils, splendid frame. . . . No messing about for weary hours, though, for a busy man in the draughty studio of some artist. It can all be done from photographs, we are told.

One wants to avoid that.

A parade of portrait painters

There is a Royal Society of Portrait Painters — the professional association of the professionals. Every autumn, in London, they hold an exhibition of the work of members. At this exhibition one can see the bulk of the past year's portraiture. But the purpose of the exhibition is not merely retrospective; it serves as an excellent opportunity for those who are to commission next year's portraits to see, and study side by side, the work of the outstanding practitioners. It is a common sight, at this exhibition, to see small groups —obviously from some firm or school— deciding upon the painter for a portrait.

That seems to be the way to set about a task of which so few of us have any experience.

Choose a small committee

The small committee, or the headmaster or bursar, entrusted with the task of arranging for a portrait to be painted can get down to the fundamentals that must be attended to — price, size, and the equally important æsthetic considerations of style. Where other portraits are in existence in a school, how is the newcomer going to look alongside them? Where tradition is already established, and recalled in a series of portraits, some of them old, it is likely that a painter working in a traditionalist style will be chosen. Happy is the school with little history; they can afford to experiment.

To-day, the patrons of art are inevitably the big firms, the City Companies, civic authorities and schools. Therefore, the commissioning of a portrait should be regarded as a great opportunity that it would be a pity to muff because of ignorance or a too parochial approach.

It's worth getting the best

The best man — within your price — is worth taking some trouble to find. A trip to Town and a visit to the Royal Society's exhibition is the professional way of setting about finding the professional who is likely to paint for you a portrait that will be worthy of its subject.

THE SCHOOL MAGAZINE

does it really matter?

asks C. L. Berry

EVERY school issues, or should issue, to parents, to pupils or to both, three important papers—prospectus, report and magazine. Though the function and value of each is so generally recognised, one still finds schools which miss the opportunity which one or another of these provides. The prospectus, which was considered in some detail in an earlier issue, introduces the parent to the school. It should indeed go far towards "selling" to a customer the article he has been seeking, just the right school for his child. The prospectus should be a truthful specification of the school as a community and as a building, of its scholastic work, of its life and rule and of its ideals. If it meets all these needs, as many excellent prospectuses do, there can be little room for those misunderstandings that sometimes arise between principal and parent on matters which should have been clear *ab initio*. The parent regards a school as successful which lives up to the promises of its prospectus. The terminal report on each pupil tells the parent how his child is living up to promises of his ability and aptitudes, to his parents' hopes and wishes and to the opportunities provided by the school. A tremendous amount of conscientious and earnest research has been undertaken in recent years on the subject of school records and reports. The former should be the basis of the latter, but is not generally intended for the information of parents. The zeal and ingenuity of some researchers have resulted in records so detailed and complex, so comprehensive and all-knowing that the study of them has become more fascinating than that of the child himself. Fortunately reaction has already set in. The most wonderful forms of individual records are less and less used and principals do not hesitate to trust their own knowledge and judgment, even their intuition, in assessing those things which are the subject of report. It cannot, however, be said that the school report is as popular as it deserves to be among the children themselves! The arrival of the school report on the breakfast table at home may rouse mixed emotions, for English teachers are incorrigibly honest in their remarks about their pupils. If the truth is unpleasant it will be told, nevertheless, regardless of who the parent may be. May one, in passing, plead for some kind of individual report even on the youngest child in the pre-preparatory school? One does sometimes meet the mistaken opinion that such reports are unnecessary for such young children.

Supplementing the annual report

The school magazine completes the trivium of information issued by the school. In it the school reports upon itself as a community and its members, or some of them, may tell of the many activities which go to make the full life of the school. In theory, of course, it is the annual report of the principal which reports on the school in a manner somewhat analogous to his report on each pupil. It must be admitted, however, that these annual reports do not and cannot rank in usefulness or importance with the other statements mentioned above. The head of a school generally presents his annual report on school speech day. He has to tell the best possible story for he may have school governors behind him and the Press in front of him. Many things which could be mentioned privately or even frankly recorded in the school magazine will be omitted from the report. The alternative is to risk their being the only things which the Press decide to publish! A good year of hard work well maintained, of happy games unselfishly played, of intelligent hobbies successfully pursued and of a community life lived wholesomely and well may be quite

(Continued on next page)

dull stuff for the Press. It is not news. The report suffers, too, in most cases in that it deals with the long period of a year many weeks, even months, after that year has ended. The principal's report is doubtless necessary. He must give an account of his stewardship. He must also pay his tribute of thanks to those to whom such tribute is due. His report, however, has served its purpose when it has been delivered. Unlike the prospectus, the pupil's report and the school magazine, it is unlikely to be preserved by anyone for future reference and satisfying reading. Hence the additional importance of the school magazine.

Paying its way

The school magazine speaks of and for the school, as distinct from whoever may be responsible for running the school. Hence it will generally be found that the school magazine is unsubsidised by the local education authority in the case of a maintained school or by the governing body of a public or other "charity" school. As a publication it must as far as possible pay its way. This independence should, however, be reflected in the character and contents of the magazine itself. It does in fact account for that delightful uncensored humour to be found in many school and college magazines, which is no respecter of persons. Editorial responsibility so obviously requires ability to be found only among the staff of preparatory schools, but at a later stage in education the magazine can to a great extent be written and produced by those for whom it is primariliy intended. An exhibition of collected school magazines representative of the preparatory and public schools, the maintained and direct grant secondary schools, would tell more than anything else of the real life and work of English education. It would undoubtedly disclose a surprising variety of publications. Some, though perhaps not many, of the magazines would be dreary, painfully correct and deadly dull. It must be confessed that such magazines are generally exclusively the work of teachers, by whom alone the various events of school life are recorded.

When apathy created competition

A guaranteed circulation gives these papers a stability and apparent success which they could not otherwise earn. In one well-known public school, shortly before the last world war, such a magazine was read with increasing boredom—or just not read at all. The failure of the magazine to interest the pupils or in any way to reflect their life and thought proved, however, to be a challenge to one or two independent minds. The result was the production and publication by two senior boys of a rival magazine. This underground paper was, of course, sent away for printing. It had not the advantage of using a school press, nor was the price of a copy put on each boy's bill. Even so, the illicit rival was a huge success and even a paying one, which ceased only when the boys responsible for it could no longer spare the time which such journalism required.

No other paper has to cater for such a strange variety of readers nor serve so many purposes as the school magazine. Parent, pupil, teacher, old boy or old girl have but the one interest in common and that is the school and yet no paper can be written throughout at the level of one only of these groups of readers. It is nowadays recognised, too, that each issue of the magazine is or should be something of a "project." It presents a grand opportunity to the boy or girl who can take it to show to the world what he can do. It may be in verse, in descriptive prose, in appreciation of art, music, drama, or it may be a drawing, a wood-cut or a lino-cut.

A record for the future

The terminal accounts of the various societies and clubs, of games, of school journeys, of concerts, plays and services are of very great interest and value. The notes on those who are leaving the school may in later years be of real historical interest. The bound volumes of a school magazine, where the school is fortunate enough to have such records for a good period of years, are of great value to the school historian. In them may be traced the many changes in school life not otherwise recorded. The school cadet corps begins and functions for some years in association with the pre-Haldane Volunteers. Then comes its transformation into an Officers' Training Corps, closely linked to the Territorial Force. The magazines of the Great War tell the story of the amazing contribution made by school contingents to the preservation of this country, before conscription helped to destroy patriotism. Then came the era of egalitarianism. The Officers' Training Corps ceased to function as such and then modern successors took their place. All this as it affected term by term the life of the schools concerned is told in the school magazine, as is the fine work done in other schools by the Scout and Guide Movements. The religious life of the boarding school—and most boarding schools are also religious communities—should have its place in the school magazine. The

No other paper has to cater for such a strange variety of readers nor serve so many purposes as the school magazine. Parent, pupil, teacher, old boy or old girl have but one interest in common, and that is the school. Yet no paper can be written throughout at the level of only one of these groups of readers. It must appeal to all of them. In addition it must provide a "project" in which boys and girls can show what they can do . . .

very beautiful and moving services which are happily common in the school chapels of England can but rarely be the subject of any Press report. It is well that from time to time the school magazine should record how the great occasions in the religious life of the school are observed.

Where it is possible not merely to compile and edit, but actually to publish and print the magazine at the school, the magazine can be of the most complete educational advantage. The machines and type required and adequate for the production of a small magazine are not so difficult to come by and their possession makes possible the entire production of the paper by the school. Technical skill combines with art and craft in producing something distinctive. The value of such work to the art teaching of the school can be considerable, since the appreciation of good typography can take practical form at an early age. The same of course is true of the opportunities provided for experiment in design and layout. Some very modern "home-made" school magazines are really delightful as evidence of what the school itself can achieve in printed matter of good taste and artistic sincerity.

Keeping in touch

The writer regards himself as fortunate in the many issues which he possesses of his own school magazine. Current numbers keep him in touch with his own contemporaries as nothing else would or could. Sufficient space is fortunately given to the doings of old boys. Births, marriages and deaths are recorded, though not in that order. One can vicariously share in the joys of the old boys' dinner and in the triumphs of those who have so far outstripped onself in the race of life. Better still, one can turn back to the magazines of one's own school days with never-failing delight.

Occasions to remember

The accounts of past speech days thrill one now more than they did then, for who really remembered the words of wisdom of the distinguished speaker? These reports seem to recall nothing, for boredom leaves no memory behind it. There are, however, countless other events in the busy life of the school which one remembers as one reads—the great matches, outstanding victories or defeats, some specially noticeable inspection of the O.T.C., a new development in the musical life of the school, a missionary preaching in the chapel who really knew how to talk to boys, the special holiday given to the whole school when the youngest member of the headmaster's family was born—*pro re nata* as the notice on the board so aptly stated—the fire in the school house on the last day of term. The potentialities of the school magazine are indeed amazing.

new ideas for schools at

THE BUILDING TRADES EXHIBITION

THE twenty-fifth Building Exhibition which is to be held between November 12 and December 2 provides a unique opportunity to examine in one central place many of the methods used in modern school construction, including prefabrication and much of the material used in the equipment and maintenance of schools.

Over fifty industries which contribute to the British Building Industry come together on this occasion to demonstrate development and scientific achievement.

It is traditional that schools and technical colleges should themselves play an important part in the Building Exhibition as for many years examples of work done in schools in the training of management and apprentices for the Building trade have appeared.

It has long been the custom for students to visit the Exhibition in parties organised by the schools and technical colleges.

Prefabrication to the fore

The Exhibition contains special features this year of great interest to school management as the most important systems of prefabrication will be shown.

Many such systems have been successfully used in school construction or extension, and some of the systems are based on the recommendations of the Ministry of Education on a 3 ft. 4 in. model.

Unit buildings which can be speedily erected up to 100 feet in length and 28 feet in width for a single span or wider for double span with heights to eaves of 10 feet are designed on a 4 ft. grid.

Other systems are based on factory produced units with wide applications including insulation at highly competitive prices.

The life of such systems with normal maintenance shows increasing durability of up to 40 years.

A new system of wall cladding for single or multi-storeyed buildings provides opportunities for the increased use of natural light in installations in school construction.

A wide range of new flooring materials are remarkable for their adaptability. Floor treatments range from those with heavy wearing qualities to those incorporating colour and of waterproof quality.

A new wood flooring shown for the first time combines the quality of fine wood veneers with the durability and strength of resin bonded materials. This flooring can be laid direct on concrete and is suitable for sub-floor heating.

Heating equipment

Heating and ventilating equipment includes thermostatically controlled systems for operation on steam, low temperature and high temperature hot water.

Oil filled radiators electrically operated effect economies in installation in positions where elaborate installations are not required.

Advanced research in heating includes an exhibit on the fuel saving "Heat Pump."

One glass manufacturer's exhibit is based on "occulting the most light," utilising plate glass as a means of capturing natural light.

Glass doors and double glazed windows are of interest, the latter can effect considerable economies in heating.

For maintenance purposes every type of development in paints are exhibited, many with plastic bases have exceptional wearing qualities whilst metallic rust-proof treatments prevent corrosion in buildings.

A cement paint covers corrugated iron, glass, asbestos and concrete with high adhesion and elasticity, and another paint waterproofs brick, cement and some stone surfaces without alteration to the surface appearance.

Equipment for floor-cleaning and dust collection in great variety enable problems of floor treatment to be effectively met.

Minimising risk of fire

The Building Research Station exhibit research into the causes and prevention of fire, and interesting material on the behaviour of buildings in fires and methods of minimising the spread of fires in buildings, a vital subject in school management.

Contemporary designs in tiles with hand-painted patterns present new possibilities in decoration for classrooms.

Cooking and canteen equipment of great variety demonstrate advances in operational efficiency and numerous systems of water heating provide the answer to problems of hot water supply.

Roofing materials include examples of modern methods, including aluminium and plastics, indicating advances due to research, and alkalthene tubes in cold water supply systems provide the answer to burst pipes.

For the workshop

Decorated wall-boards for wall panelling and furniture surfaces are also produced in handy panels for amateur conversions on table tops, desks, laboratory tables, etc. A simple job which will interest the wood workshop pupils and alas discourage the amateur carver!

An important section of the Exhibition covers all modern types of woodworking machinery of great interest to the instructor in the school workshop.

Refrigeration by electricity, gas or paraffin enables the most isolated schools to maintain food and milk in good condition and water softening equipment can effect economy in laundries.

Education Authorities and those engaged in the management of schools will find the answer to many of their problems in the 350,000 square feet of displays at the Building Exhibition.

SERVICE BUREAU

Inquiries should be addressed to the Service Bureau, SCHOOL MANAGEMENT, 18-20 York Buildings, Adelphi, London, W.C.2, accompanied by a 2½d. stamp.

Bedding and chairs

Where can we obtain new bedsteads and mattresses and also folding or nesting chairs for the School Hall?

The following firms supply beds and bedding: A. F. Buckingham, Ltd., Willowbrook Grove, London, S.E.15; Institution Supplies, Ltd., 46 Park Place, Leeds, 1; Educational Furnishings, Morley's Stores, Ltd., 472-488 Brixton Road, London, S.W.9. Nesting chairs are available from: The Educational Supply Association, 181 High Holborn, London, W.C.1; Pryke and Palmer, Ltd., 40-41 Upper Thames Street, London, E.C.; James Farquharson and Sons, Ltd., Park Parade, Harlesden, London, N.W.10.

Bulk buying of darning wool

Is there a firm supplying thick grey darning wool in large quantities? Local drapers can only supply the small skeins.

We suggest you apply to Messrs. Leighton, Baldwin Cox and Co. (Wholesale), Ltd., Albany House, 37 Conway Street, London, W.1, who supply darning wool in bulk.

Traffic reflectors

Could you tell me of a firm which manufactures reflectors for road traffic? I require these for posts which are being erected across our drive.

Messrs. Gowshall, Ltd., 14 Lambs Conduit Passage, Red Lion Square, London, W.C.1, will be pleased to supply leaflets giving details of their fitments. Another firm of suppliers are Franco Signs, Ltd., 15 King Street, London, S.W.1.

Table tennis paint

Can you advise me what stain or paint should be put on tops of table tennis tables?

Re-surfacing of this kind is undertaken by Messrs. Lillywhite Frowd, Ltd., who will thoroughly re-condition the table top and correct surface irregularities. The address of their branch in Ireland is High Street, Waterford. If you prefer to tackle it yourself, we suggest you try Robbialac Undercoat, shade No. RU 10, which you can obtain from any Robbialac retailer.

ORGANISING WINTER TERM WORK

THE BURSAR reviews his plans for using "child labour" and supervision

THE new school year has started and now is the time to try out fresh ideas, consider failure and success and to try to be honest about it. Four years ago I attended a bursars' conference, quite a small one, where a dozen schools of a special type were represented. I remember creating quite a stir when telling about the way our children helped with general maintenance. In those days it seemed they could tackle almost anything, from the exterior decoration of the buildings to re-wiring the electric clock system, from refurbishing grimy oak panelling to the intricacies of stage lighting. The first hour of every day was spent by the whole school in such "useful work"—that is to say, the senior side, the thirteens to eighteens, and although the middle schoolites do half an hour or so each morning, theirs is another story.

Responsibilities of the foreman

I urged, at the meeting, that a good man overlooking the pupils was essential, that big jobs could be undertaken providing this overseer would take responsibility for children working on ladders, and, finally, a high standard should be set with this foreman, skilled in all departments of maintenance. Three tall orders, perhaps, yet at that time we appeared to fulfil them all, and I was keen about the large maintenance gang then working under the clerk of works, and more than satisfied by the money the figures showed they were saving the school.

It would be sound practice never to act upon a first opinion, however well considered, but always to wait for the revised opinion some time, or even years, later. Alternatively, having expressed an opinion of importance, one should be prepared to revise this before the same audience if you find by experience you are wrong. Perhaps we bursars shall meet again very soon, and if so, I must qualify my earlier statements and my enthusiasm concerning maintenance done by the children.

Years ago, *Punch* had a delightful drawing showing a ship half-built upon stocks in a cloistered quadrangle. The gowned master was conducting prospective parents around, and casually pointed this out as the work of the Junior Hobbies Class! Obviously the age when we considered children capable of anything an adult could do, instead of just capable of anything. Unlike this shipbuilding act, there is a definite limit to the usefulness of child labour from a bursar's point of view. I emphasise this angle because I acknowledge the usefulness from an educational viewpoint. Last month I told about a big venture carried through upon the shoulders of one boy, but this was a glorious exception, and did a great deal for the boy himself. He had the ability and the staying power to see the job to a finish. Many have the ability, but lack the power of application to complete work as a craftsman would leave it finished. I do not believe children at school should be expected to reach this high standard when their daily life at school is brim-full with other attractive and important happenings. The young man I wrote about specialises in P.T., but plays no games and enjoys such manual work as his week-end hobby, with few friends to tempt him away.

Coaching a maintenance team

My problem this autumn term is to organise a very small group of senior boys to do simple maintenance. A year ago our clerk of works left us, and the large group of boys he had working under him on all manner of jobs came under a new appointment for school workshops. Very wisely, this master decided not to take any responsibility for "useful work" done by his group outside the workshops. At the same time we decided not to appoint another clerk of works, and

so sent away our full-time plumber and carpenter, putting out our maintenance to the jobbing department of a big local builder.

During this first year of a new experiment I had no time to work a group of boys under my personal control, and so the general maintenance group disappeared, concentrating upon furniture repairs and the design and making of such things as stools, forms and various classroom fittings. This has proved successful, but nothing else whatever has been done towards small repairs about the buildings.

The cost of the professional

At first the pupils were appreciative of the efficiency of maintenance carried out by this firm; damage was repaired more quickly than under the old system when so much was done by themselves. They were a little impressed by the workmanship and the method and finish, and later by the improved appearance of the buildings. I have mentioned in this column before our system of "breakages," where careless damage is assessed by the school breakage officer, and the offender must then pay up out of extra pocket money, or the weekly sum of sixpence paid over and above pocket money which could be kept for tuck-shop spending if the carelessly driven ball hadn't crashed through the study window. In the old days a small window could be put in by the boys themselves for a cost of 1s. 9d., but now they are horrified to find 6s. charged against their name. A common-room door is slammed until it tears away from the hinges—5s. might have covered its repair, but by the time the firm's foreman has inspected the job and sent his carpenter along there won't be much change out of a pound note. By this last term, voices were being raised and efforts made to get permission to put in a broken window themselves, buying the materials, glass and putty, and so avoid the new high cost. Some other thoughtful ones asked me if they couldn't do some of these maintenance jobs for the school, as they used to do, and save the school money.

So back to the amateur

This is just what I hoped would happen. The work done now by the children in "useful work" time in the workshops is most satisfactory; the maintenance done by the outside firm is efficient but expensive, though not likely to prove more expensive than running our own maintenance men; a small, specially picked band of boys and/or girls, working in conjunction with the boiler-handyman regularly employed, and both under the direction of the bursar, could save the school money, and, I believe, make it possible to announce a saving on the new system over the old.

Before going into deails about working this new group from my office, let me give you my impressions about this last year, and why I believe it will prove to be a saving and not the extra expense most folk considered. We spent twice as much on "repairs and renewals" this last year than the year before, but the buildings are in a much better state than they have ever been since the war. Two-thirds of this additional expenditure fell in the first term of the year, and three-quarters of that was what I should term non-recurring, in other words, money spent making up arrears of work. By the third term of the year we were climbing out on top of the work and the schedules of work now on my desk for this September are encouragingly small. My aim is to get right on with repairs as soon as reported, think up methods of prevention and safeguard against future damage, and by constructional alteration give longer life to some renewals.

Keeping a high standard

A big item in those arrears was for the complete overhaul of all electrical circuits, the majority being found faulty. For years our own electrician and the children had been handling this work, but the standard cannot have been kept high enough, and children's ideas on electricity must have been passed because it was quite a good job for a child rather than because it was dead correct by an electrician's standard. I found the same situation wherever I looked into carpentry or plumbing, glazing or painting. The work was not good enough to stand up to daily wear and tear in school life, and although judged good efforts, were not so much of a saving to the school as we once thought.

Two faults I must mention. The first: we let the children attempt far too much in the time at their disposal, and jobs which, technically, they could not be expected to do after a brief school workshop training. The second lies with the size of the group in relation to the single overseer. There were some twenty senior boys working under this one man, and they would be scattered about the building on various jobs during the first hour of the day. A foreman with twenty skilled men to look to on totally different jobs would be hard put to it to keep them all up to scratch. What we were asking one man to do was impossible.

To digress a moment. It has often been suggested the pupils can help with the housework and save a domestic staff. It just

(Continued on next page)

can't be done if a satisfactory standard of cleanliness is to be maintained. The pupil has other school work and activities to attend to, and can only give an hour a day unskilled labour at most. The housekeeper expects her cleaners to get the dirt out of the corners and the cobwebs from the ceiling, and she cannot compel pupils to give her such service day after day and month after month. We must be careful and thoughtful in our approach to this problem, and next term I have my opportunity to be both!

Briefly, I hope to start with three or four responsible seniors. Living in the body of the school, they will report faults, repairs, and improvements to my office. I believe they will develop a spirit of care for the school fabric as they go about. Jobs they feel they can do, such as glazing, simple carpentry and painting, we will get down to and do them thoroughly. A record of the work done, and therefore money saved, will add to the interest, and the firm's foreman shall be brought in from time to time to criticise! Please wish me luck!!

HOUSE-KEEPERS' NOTEBOOK

Planning for extra domestic work in the winter term

THE autumn term in any school is perhaps the most interesting because it is the beginning of a new school year. There is for the returning youth the satisfactory moment of meeting old friends and exchanging holiday activities and of welcoming new members to the big family of school life. There is the usual excited babble of voices around the notice boards on the day of return. What new authority will "regu'ate" their behaviour in classroom or bedroom? query the juniors.

It is the term for rugby and football, but autumn has lingered, spending her golden treasure slowly, and winter clothing has been optimistically packed with odds and ends of summer apparel tucked into the depths of the trunks.

Matron and her assistants helping to unpack make mental notes of objects to investigate, check the carefully made lists of new pupils and encourage cheery veterans of one year's residence to help the newcomers with the disposal of their weighty cases.

Bedroom lists have been posted and new arrivals, having reported to authority and discovered their new places, dash up and down stairs to "bag" strategic beds and desks. For days the bedmakers have vacillated between three or four blankets, deciding in the end that nobody freezes without protest. The sewing room maids have carefully pasted bedroom lists to stout cardboard (how else would they survive the countless references made to them?) and now receiving stacks of towels are filling the shelves with their colourful contents. Apologetic notes accompany unmarked garments and matron, assuring the timid, cheering the lonely, checking the nervously boastful, makes notes and dispenses smiles and dispels fears with unfaltering kindness.

The autumn term is an especially busy one socially for there is generally much entertaining with lectures, musical evenings, drama and meetings of all kinds to dovetail into the restricted leisure.

The routine of domestic life changes, too, with the impact of these activities but most people enjoy a change whether in work or play. The senior pupils can give admirable help in entertaining the school's guests and extend their home training in the social graces. But there is always a need for extra domestic help during the winter months. It is wiser to prepare in advance for emergencies and engage some alternating staff rather than exhaust good workers with excessive demands on their strength. Winter makes heavy demands on the kitchen staff—more cooking and serving of hot meals is necessary and the school day begins early and always overlaps the next one.

The chills and ailments which beset the ordinary family have their repercussions on non-resident staff and some nucleus of emergency staff is essential. This help can often be more easily obtained through the good graces of members of the daily-help brigade than in any other way. The dwellers in those long rows of cottages or prefabs know the good housewives and the lazy and casual ones.

The little groups of women who attend nightly to wash up after the evening meal enjoy their work in the warm pantries and kitchens. They rejoice in the opportunity and in their ability to earn their money so easily. As they clear away the remains of the meal and polish the tables

and prepare for the following day's ritual of meals, there is no envy in their hearts. And seven days a week they are happy to make the working day shorter for those who have to prepare and serve a breakfast at 7.30 a.m.

One hears of schools where night cleaners keep beautifully spick and span the shining corridors and many rooms. Modern equipment does hasten the process of cleaning but a wet day and an invasion by hurrying youth quickly nullifies the effort. And who cares? Not the schoolboy!

* * *

A "BUSMAN'S holiday" can be merely amusing but it may be surprisingly instructive if undertaken in a receptive and adventurous mood. There was much to interest and delight one in an exhibition of students' work staged in a series of rooms in a technical college visited recently. Most of the exhibitors were evening school students and their work ranged from that presented by first year students to the advanced and exquisitely sewn garments, etc., of women working for the certificates of the London City and Guilds Institute. With vivid memories of one's own efforts in a long ago past, one could but rejoice in the scope of colour and style and gaiety shown in these modern garments.

White work, beautifully executed but laborious and eye-straining was almost *de rigueur* at one time. Materials were chosen for their wearing quality and garments designed (or so it appeared at the time) to disguise the figure rather than reveal and enhance its charms.

Now, in the rainbow-hued display of lingerie and frocks, cleverley cut, beautifully sewn whether by hand or machine, one sees the march of time, gay and defiant of all that savours of stodginess! Afraid of colour? Not the young folk; they clutch it and carry it like banners and if taste offends at times, be sure they will be told and learn from the criticism—outspoken as never before—of their contemporaries!

In this display of talent there were gowns of every description and style; tailored suits and greatcoats; millinery and fairy-like garments sewn with a joyous exhilaration. No long seams—bands holding beautifully stroked gathers are museum exhibits to-day—warm winter undergarments—who wears them?

But excellent cut, good workmanship—suitability (not in its Victorian significance) are all there and materials are as unlike the long cloth of long ago as the textile trade can achieve. One section of the exhibition invited rest in well upholstered

BY ELIZABETH MIDGLEY

chairs made by women students. Stools, tables, chests, chairs of all shapes and sizes and types gleamed in polished wood of all kinds. Rugs and cushions, pottery and metalwork added interesting and artistic value.

In the cookery section furniture had been borrowed from a nursery school and the tiny tables with individual place mats, charming china and "young" cutlery and crockery were most pleasing. Shallow dishes on each table held tiny hedgerow fruits and flowers—gay with autumn tints—and one expected the bibs and feeders would be as jolly and decorative as possible.

Senior students had iced and decorated cakes; jellied meat and fish moulds; whisked custards and creams and concocted tempting dishes which looked almost too delicious for mere mortals!

A satisfying and interesting feature of the exhibition was the help which local tradesmen had given. Beautiful materials for every purpose hung and were displayed in all departments. Lustrous furnishing materials—gay chintz and prints—heavy upholstery and lighter weight cretonnes—brocades—anything for any type of home could be seen. Similarly in the rooms devoted to dressmaking, tailoring, lingerie, felt work, materials hung to stimulate adventure and satisfy needs. China and glass and pottery, modern and old, added their note and emphasis to a corner or a room, or made the perfect container for branching shrubs and radiant spikes of bloom, or held in their shallow depths the gay little garden flowers. The flowers everywhere were beautiful in their arrangement. The choice and the homely, the flaunting and the shy, challenged one with the perfect fitness of each group. One of the classes it is hoped to inaugurate in the near future is one on "flower arrangement." It will be delightful and inspiring one can feel assured.

But to many the most interesting feature of the exhibition was the wonderful display of literature and demonstrations augmenting the various aspects of achievement.

The public library had loaned books on hobbies and crafts, on the history of homemaking, furniture, pottery, textiles, etc., etc. Books on local trades, on the history of the district, novels and books of all types,

(Continued on page 454)

Processed Foods: *a "must" for the canteen caterer*

WHENEVER a new way is discovered of doing anything there is bound to arise criticism of that new way by a definite class of persons. It is not fair to call them old fogies for very often it is the young who take up that attitude. For example: I was the first person ever to wear pyjamas at my boarding school, and such was the reception of these new-fangled garments that I begged my parents to put me back into night shirts such as all the other boys wore. (What would happen to-day if a boy came to school with only night shirts for night wear?) Naturally the same befalls new foods or new processes of dealing with foods. It took 200 years to get the potato into favour and at least 100 years to popularise the tomato. There are still people who resent the introduction of the roller mill into this country somewhere around the eighties of last century. Despite the fact that the roller mill gives you much greater control over flour, both in quantity and quality, the old stone mill is to be preferred! To-day many, if not most, of our foods that we buy on the market have gone through some manufacturing process. When the process is elaborate, as with the modern method of producing dried vegetables, dealt with in a recent number of *School and College Management*, the food gets the label "processed." It has gone through a "process" and so in our modern way we turn a noun into a verb, and dub them "processed." And as sure as eggs is eggs (and very dear at that) these processed foods will be denounced by old fogies of all ages and sexes. I want to show that we can't get away from processed foods and that catering establishments must make use of them.

Some people will aver that they are not so nourishing; others will say that the foods haven't the flavour that they used to have in the good old days. I myself imagine that bread to-day doesn't taste half so good as it did when I was a youngster, though candour makes me admit that that may be due, partly or in the main, to the fact that my senses of smell and taste have deteriorated.

You can't get away from processed foods. Bread is one, and butter is another. Unless we grow our own wheat, mill it ourselves and bake bread from the flour we cannot call it in any way unprocessed. Even the yeast you buy will have gone through a process. In my boyhood days it is true that you could go to a brewery and buy barm (i.e., yeast). (In fact it was done in my home though we were all rabid teetotallers!) But to-day you would have to buy yeast that had been "processed" by the D.C.L. or other company.

Bakers' bread is a processed food. The flour has been processed. The yeast is processed. What is making dough but processing? "Chemicals" are added to the flour to prevent the bread from going stale quickly. The tins the bread is baked in may have been "greased" with silicones—a highly artificial lubricant never appearing in nature and entirely the creation of a chemical laboratory. So when you get your loaf of bread it is a highly processed and artificial substance.

With butter it is much the same. In the "good old days" of my grandmother's time —she made, I'm told, admirable butter—the cream (hand skimmed of course) was allowed to go sour on its own. Or it was, more likely, put into the butter tub which had still some of last week's sour cream in it. That turned it sour quickly. Then it was worked up and down in the tub—a tall conical affair—till the fat ran together and became butter. (None of your revolving churns for her—they hadn't been invented.) To-day all that is changed. The cream is obtained by a centrifuge, it is soured arti-

★ *Plain speaking from dietitian V. H. Mottram on the newest fashion in food*

ficially and not "naturally." In other words special microbes are grown fairly pure—"cultured" is the term. You buy your "starter" from a firm which specialises in growing microbes for souring cream. You test the acidity (sourness) of your cream with special testing papers. And when it is at the right degree of sourness you churn it into butter. Oh, it is process, process all the way, to parody Browning.

You can't escape the processing

And then, of course, if a school decided to make its own butter it would not be a paying proposition. The main raw material for butter making costs 7d. pint and you couldn't make butter at less than 4s. 8d. a pound!

So, of course, most of us have to have butter which has come from a country where the milk is cheaper.

It is the same all the way round. All our foods practically have been processed before we get hold of them with the exception of fresh fruit and vegetables. The milk has been pasteurised (or it should have been! Anyone who drinks raw milk runs risks. A friend of mine—a canon of the Church of England—spent months in bed with undulant fever, caught from raw milk. My second son had to be operated on for tuberculous glands at the age of three and has lost his right sternomastoid muscle as a result and bears the scars to this day. This could only have arisen through drinking unpasteurised milk.) Our kippers have been dyed—so have our glacé cherries. Cocoa has gone through various processes to make it "soluble." Tea and coffee have been blended. Beer has been brought up to a standard colour. Butter has had dyes added to it—all except butter from the milk of Channel Islands cattle and that is so orange in colour that it looks suspicious! Anyone who likes to have his flesh made to creep about the "purity" or otherwise of the food we eat should turn up the advertisement pages of some trade paper which deals with food, or articles in *The Analyst*. I, myself, a pretty hardened creature, have been shocked at times. Recently, for example, a preparation for making meringues was found to be methyl cellulose, a purely laboratory product, nothing to do with white of eggs.

I wrote above that I couldn't see how a catering establishment could avoid using "processed" foods, even if we don't use the term "processed" quite so pedantically as I have used it above.

Let us consider peas—green peas. I think everyone will agree that green peas are one of the, if not *the*, finest vegetable(s) on earth. But how many of us can have fresh green peas? I found the other day that picking enough peas for my wife and myself took half an hour, and shelling them the same amount of time. Very few schools even if they have a magnificent garden and admirable gardener could afford the time (not to mention the space in the garden) to give 200 boys or girls garden peas. The same applies if the school were to think of buying peas on the market. So if green peas are to be given once in a way they would have to be "processed" in some way or other. Frozen green peas would be the next choice, if taste is to be considered—but think of the cost! Next on the list come canned peas. If you have ever been round a canning factory when they are canning peas you have seen "processing" at work. The pea pods go through a mechanical sheller which may bruise them somewhat. Then they are blanched, sieved—for all must be of one size in the best-priced cans—dyed with an aniline dye, and finally put in their cans, autoclaved and sealed. There's processing for you!

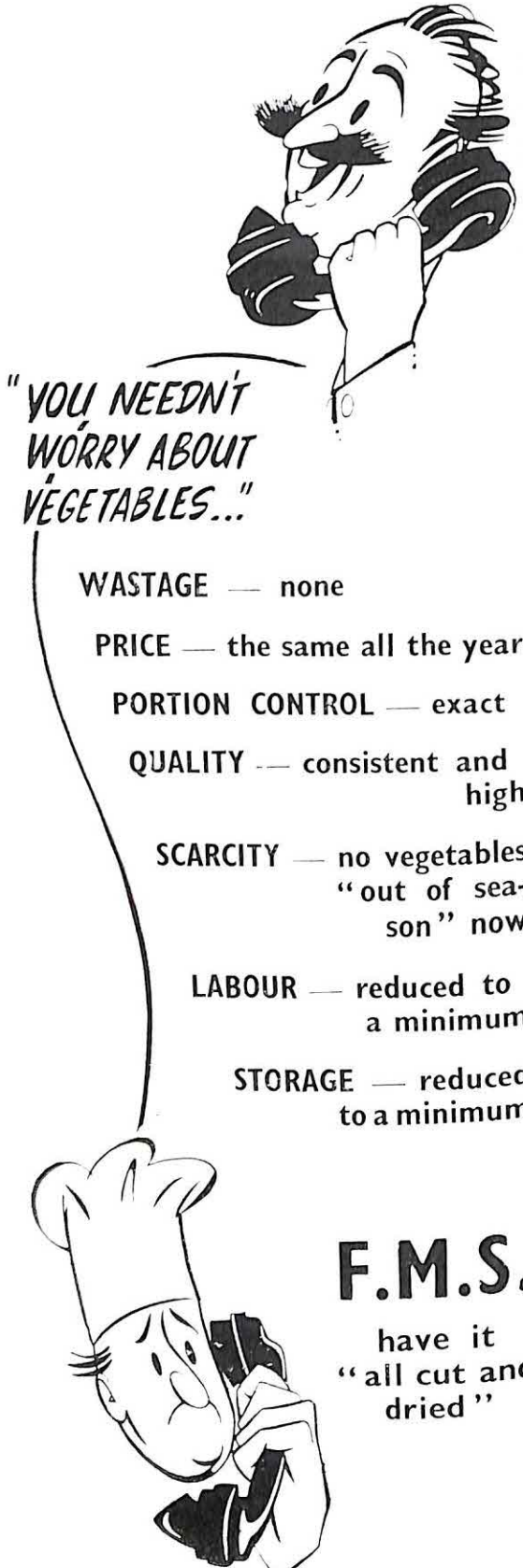
Another grade of canned peas is, I suspect, made from dried peas which have been soaked to swell them and then are treated much like canned "garden" peas.

Conscience and the dried pea

Last on our hierarchy of peas come dried peas. And I think that these are what I should use if I were a school caterer. Of course I should know that they hadn't a speck of Vitamin C in them, whereas true garden peas, frosted peas and canned "garden" peas would have it, and I should feel a bit of a fraud serving dried peas as a second vegetable. I feel that the second vegetable should be a fresh vegetable, probably because, I suppose, I think it ought to contain some vitamin C. However, I should salve my conscience by getting some vitamin C into the second course at dinner. I might even consider a sweet that is frequently served at a boarding school I know, but only if the first course had been rather filling and stodgy. I wouldn't serve it after fish pie, or macaroni cheese. The dish is black currant purée (a processed food very rich in vitamin C) on ice cream (also a processed food).

No, you can't get away from processed foods in modern catering and everyone should face that fact. But there is one word of warning I would finish with. Food manufacturers, like most other folk, are not

(Continued on page 452)



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PICKLES

MANY school caterers will not approve of including pickled onions in school menus. Highly spiced foods and stimulants are not regarded as desirable or necessary for young healthy appetites. The eternal bottle of piquant sauce as a permanent table appointment suggests bad cooking, but there are many recipes that are much improved by the use of a sauce or pickle as an ingredient, and there are some pickles which will interest children and perhaps add a little enticement to a salad or otherwise plain dish.

In making pickles it is the vinegar which is the important product for preserving the fruit or vegetable, but sometimes a combination of sugar and vinegar is used. A good quality vinegar is necessary and it is advisable that the vinegar should be first boiled and cooled, unless of course the pickle is cooked in the vinegar.

Vinegar and spices

Some people think that it is essential to have a malt vinegar, but this is not so; provided there is sufficient acetic acid present, any vinegar will preserve. Malt flavour appeals most generally, but for some purposes white acetic acid gives a better-looking result. A spiced vinegar can be bought, but it is more economical to add the spices. These can then be varied as required. An ounce of mixed spices is usual for each quart of vinegar, and any of the following types may be included: cinnamon, cloves, whole allspice, mace, peppercorns and chillies. The spices are placed in a muslin bag and brought slowly to the boil in the vinegar. They should be left in the vinegar until it is cold (and, by the way, spices can be used several times if they are dried after use).

Remember that most types of vegetables can be pickled, and a mixture is often preferable to one variety. It is very important that vegetables should be brined; they may be thickly sprinkled with salt, allowing about 4 oz. of salt to every 2 lb. of prepared vegetables, and left to stand overnight, or else put in a salt solution. The

and CHUTNEY

are better than a bottle of sauce to whet children's appetites, if used with discretion, says Doreen Davies.

salt extracts some of the water from the vegetables, and is a necessary preparation for pickling. After salting, it is only necessary to drain the vegetables and cover them in spiced vinegar for a simple pickle. Use the vinegar cold to retain crispness of the vegetables.

It is well known that some metals are attacked by acid, and for this reason it is very important to take care in choosing a suitable pan for making cooked pickles and chutney. Avoid iron, brass or copper, and use an enamel-lined pan only if it is completely free from chips. Aluminium is the most suitable metal; steel pans are also very safe, but not many kitchens can afford the luxury of stainless steel pans.

Pickles and chutney do not need to be sealed air-tight in order to preserve them, but unless the jars are well covered there is a tendency for the vinegar to dry off and for the pickle to discolour on the top. Proper pickling jars usually have a thick wax card disc fitted inside the lid which makes a close cover, and at the same time protects the metal from corrosion by the vinegar, but when large jars are being used a more practical cover is a piece of linen dipped in melted wax or any other hard fat. Mutton fat is sometimes used, but in this case the jars should be stored in a cupboard which will not attract mice. Synthetic skin and plastic material can also be used very satisfactorily for covering pickles and chutney.

* * *

Here are a few recipes which will be found popular with children and are at the same time easy to make.

PICKLED PEARS

4 lb. cooking pears
1 lb. sugar
1 pint vinegar
4 level teaspoons whole cloves
4 level teaspoons allspice
2 level teaspoons crushed cinnamon stick
1 piece bruised root ginger

Peel, core and cut the pears into small pieces. Place the sugar, vinegar and spices tied in muslin in the pan, add the fruit, and simmer slowly till tender. Drain and pack the fruit into clean jars. Boil the vinegar until it is slightly thick and fill each jar with enough hot vinegar syrup to cover the fruit well. Cover and seal.

* * *

POTTED BLACKBERRIES

4 lb. blackberries
1 lb. sugar
1½ pints vinegar
¼ oz. bruised root ginger
1 level teaspoon pickling spices
2 inches cinnamon stick

Warm the blackberries and sugar in a slow oven until the juice flows and the sugar is dissolved. Boil vinegar and spices tied in muslin for 10 minutes. Place the berries in the jars. Pour vinegar syrup over and cover.

* * *

GREEN TOMATO CHUTNEY

2 lb. minced onions
1½ to 2 pints vinegar
2 lb. sugar
2 lb. minced apple
10 lb. minced tomatoes
1 level teaspoon salt
1 to 2 teaspoons pickling spices

Cook the onion for about 20 minutes in a very little water in a covered pan. Add the apple and tomatoes, salt and pickling spices, tied in muslin. Continue cooking until all the ingredients are quite tender, about another ½ hour, adding a little of the vinegar to prevent burning. Add the sugar and the rest of the vinegar, stir well and continue boiling gently until the chutney is thick. Remove the bag of spices, and bottle.

* * *

DAMSON SAUCE

This is a sauce which may be used as a bottled piquant sauce on the table. It is economical to make and second-grade damsons can be used.

(Continued on next page)

continuing

PICKLES AND CHUTNEY

8 lb. damsons
1½ lb. onions
4 pints vinegar
2 lb. sugar
4 oz. salt
2 oz. dry mustard
1 oz. ground ginger
1 oz. allspice
½ oz. ground nutmeg

Cut up the damsons and onions and cook in half the vinegar for ½ hour. Rub through a sieve, return to the pan, add the remainder of the ingredients. Bring to the boil and simmer for 1 hour, stirring occasionally. Pour into warm bottles and seal at once.

* * *

There are many other varieties of chutneys and pickles, but some kinds of fruits and vegetables can be stored without any preservative. Marrows, if placed in a cool room and hung in a net bag or placed on a well-ventilated rack, will keep until Christmas. Green tomatoes may be ripened very slowly in a cool dark place. Shallow boxes or drawers lined with newspaper are excellent for this purpose, provided the tomatoes are kept in single layers. This will prevent them shrinking, but they must be examined regularly so that any which may have decayed are removed before they infect the others.

Storing nuts

Many schools are situated in areas where children can gather nuts from the country. If they are gathered when fully ripe—that is, just dropping from the trees—the nuts can be successfully stored for at least three months without any special treatment. The outer husks should be removed, or it may be necessary to scrub almonds and walnuts with a dry brush. Spread the nuts out in a room of normal temperature to dry very thoroughly before packing them into boxes or tins for storage. It is a good idea to pack them in dry sand, but they will keep quite satisfactorily as long as they are dry before they are placed in boxes or tied in bags. It is essential to store them in a very cool place, otherwise the kernels will shrivel.

The only way of storing nuts which have been gathered before they are fully mature is to remove the kernels, sprinkle them with salt and bake them until they are crisp. Almonds, hazel nuts and cob nuts may be treated in this way.

* * *

If there is space in the store cupboard and time for making a little more jam, it is not too late to profit from the hedgerows. A great favourite with children is blackberry jelly and this is very easy to make, provided you use something to help to set it. Blackberries are lacking in pectin; they may be combined with apple juice or lemon juice, but a simple, quick method is the use of commercially prepared pectin.

BLACKBERRY JELLY

3 lb. berries
3¼ lb. sugar
¼ cup of water
1 bottle of commercial pectin.

Simmer the fruit with water until tender. Strain through a jelly bag, measure the liquid and if necessary make up to 2 pints by the addition of a little water. Put the sugar and blackberry juice into the pan; heat and stir until the sugar is dissolved. Bring to the boil (for 5 minutes), add a knob of margarine; stir in the pectin and boil rapidly for 1 minute. Cool slightly and then pot.

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continuing

PROCESSED FOODS

above making easy profits. Now the cheapest food in the world is wheat flour and if it is included in the ingredients of a manufactured food down comes the cost of putting it up. Looking over recipes for meat pasties and "luncheon sausages" and the like I found that wheat flour gets into the majority of them. So instead of meat you are getting flour. I don't quite appreciate that, and if, as a caterer, I was being persuaded by an agent to try sundry commodities of that type I should ask for an analysis. If, as is likely, that wouldn't be forthcoming, I'd drop a little dilute tincture of iodine on the sample of food, and if it went black in the face, I'd say: "Not on your life!"

An illustrated brochure brought out by James Rush & Co. (Northern), Ltd., gives caterers a guide to the selection of glassware available from this firm. This ranges from the heavy "Gladiator" tumblers designed for the wear and tear of canteen use to fancy glassware. The pamphlet draws attention to the Duralex range toughened glassware, tested to withstand oven heat up to 600 deg. Farenheit, and is "virtually unbreakable under ordinary use." This firm also take orders for marking crests or trade marks on glassware. The brochure is available from the manufacturers at Bridge Glassworks, Stepney Bank, Newcastle-on-Tyne, 1.

TEXT BOOK REVIEW

English Appreciation

By S. H. Burton.

(Longmans, Green & Co. Price 6s. 6d.)

THIS book is intended to provide an introduction to the main historical developments in English prose and verse. Section I consists of prose passages that reach back as far as Caxton and extend to the present time. The verse section has an even wider span, while the critical part goes back to Aristotle and proceeds through Sidney, Wordsworth and Matthew Arnold to T. S. Eliot. The general aim of the book is to encourage pupils to read carefully so that they may understand completely and move from understanding to appreciation. Well devised questions provide opportunities for pupils to express their own ideas on the passages.

One sometimes feels that there is in our present examination set-up too great a concentration on criticism, which is, after all, the last of the arts, to be enjoyed mainly by those who have read long and widely. But there it is, and schoolmasters would be unfaithful to their trust if they did not use what means lay to hand for preparing their pupils for the critical ordeal. This book provides first-class practice in the groundwork of criticism. The passages are varied and well chosen, the critical extracts much to the point and the questions well conceived and searching. The present reviewer actually forgot for a moment that he was reviewing and abandoned himself to the enjoyment of some of the lovely pieces.

Physical Geography and Climatology

By N. K. Horrocks.

(London: Longmans, Green & Co., 1953. 14.5 x 22 cm., xv + 368 pp. 18s.)

ALTHOUGH few geographers would now agree that man is dominated by his environment, it is generally recognised that to understand fully the development of human society in widely different habitats it is essential to investigate the natural background to life. The roots of geography dig deeply into the underlying physical basis. However, the traditional cornerstone of the subject, the physical aspect of geography, has been much neglected in recent years and consequently this new book may well "play its part in a revival of the teaching of physical geography in schools," to quote Professor Wooldridge who contributes a foreword requesting that the "Ge—" be replaced in Geography.

Intended for scholars preparing for geography examinations at an advanced level, this book should also be of value in certain sections to those who reach scholarship standard. In a most comprehensive, well organised and, in general, lucidly presented manner, the various physical factors which give character to the face of the earth are carefully examined.

In that physical geography naturally rests on a firm basis of such specialist sciences as meteorology, geology and pedology it is essential in a book of this type that the author presents the scientific material clearly without confusing the non-scientist. In my opinion, Mr. Horrocks has largely succeeded.

The 21 chapters are grouped into six sections. The first, "Structure of the Earth's Surface," includes an introductory chapter on weathering processes and rock types, while the five chapters of Part Two cover various types of "Earth Sculpture." Following a major section on "Meteorology" and preceding "Climatology" (a treatment of the world's climatic regions), are two chapters on "Plants and Soils." It is interesting to note some emphasis being laid on a branch of the subject often neglected, for from study of its soil the nature of a landscape can, on many occasions, be understood. The final chapter covers the various aspects of "Oceanography."

The book has over 200 well chosen, clearly drawn maps and diagrams which are carefully integrated with the text. The photographic illustrations, more than 50 in number, are equally commendable.

This attractively presented volume, with its strong cloth binding, will undoubtedly prove most valuable to those studying geography beyond "Ordinary Level" providing a wise coverage of the various aspects of physical geography, that fascinating basis to a fascinating subject.

G. H. H.

"We Are What We Eat"

IN this small book published by The Salvation Army two women doctors set out to encourage the consumption of raw natural foods. The writers give countless examples which indicate that diet is very closely related to health, but it is doubtful if many of the innumerable brief case references would be acceptable as proof of all the conclusions drawn. Whilst the incidents related make interesting light reading the complete lack of scientific data makes rather defenceless arguments. The points made most thoroughly, like fresh food, raw food and whole foods make for good teeth, have already been firmly established, and it is disappointing therefore to find that some of their more original conclusions are not supported by more facts. Criminologists no doubt would be overjoyed to discover that a diet of plenty of raw foods, whole grain cereals, etc., may cure or at least be a deterrent of crime.

The success of the diet treatment in curing

delinquency described in this little book is unlikely to convince many responsible for the care and education of delinquents or mentally retarded children, but the anecdotes may encourage some to try out the suggestions.

That a complete diet of raw, fresh and natural foods is not very popular is frequently confirmed in the book by the number of times it is recorded that patients have been treated for various ailments, first by 100 per cent natural diet, which it was possible to reduce later to 50 per cent, and subsequently to 25 per cent. The "eat more raw food" appeal would be more effective if more space had been given to the practical issue of making raw foods more palatable.

Typical menus are given throughout the book, and a section includes recipes and a few helpful hints. More space and time devoted to this section could have made the book of more value as well as of greater interest to schools and homes. Establishments aware of conservatism in feeding habits may profit by knowing We Are What We Eat. D.D.

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continuing

HOUSEKEEPERS' NOTEBOOK

initial essays, etc., etc., were there to be looked at and handled and "dipped" into.

The Girl Guides had staged a wonderful miniature display of their camp work, of the training they can take in sick nursing, cookery, housewifery, etc., etc. The ambulance and first aid work was invitingly demonstrated and literature was available here as at the Girl Guides' display to inform the aspirant and the enquiring.

Classes for a bewildering variety of subjects are being formed for the winter session and so great is the demand for "places" that the number of "day" classes is increasing considerably.

The wonderful co-operation between the heads of local trades such as engineering, building (and all its branch trades), printing, textiles, foundry work, etc., etc., and most technical colleges is evidence of the value of the technical training given at all stages. Domestic science, secretarial courses, almost any aspect of any subject, can find help and inspiration. The response to the opportunities afforded is a healthy sign that the demand for efficiency in work of all kinds is recognised and appreciated. Modern youth is prepared to work and enjoy it. Modern youth expects also to have time for play and deserves that too.

E. H. MIDGLEY.

ALL THINGS CONSIDERED

(Continued from page 436)

the other hand, almost invariably ask for a print. Whether this argues that the male of the species is more conceited than the female, or vice versa, I have never been able to determine. Be that as it may, if we spend our lives in a school we are bound to be photographed with the group every two or three years at least, and probably every year. The cost of such a photograph seems to me to be still amazingly low, and it is very difficult to resist acquiring one each time. Apart from the pleasure of seeing oneself again, there is a fascination in watching the progress of young so-and-so from a small boy squatting on the ground at one's feet to a position in the second row, then to the third, then to the back row, and, finally, to a chair in the staff line. We pedagogues change less rapidly, but these group photographs serve as a salutary reminder of mortality. The photographer who took our school photograph last summer told me of a school where they hang their annual photographs along the cloister. The headmaster now featured in over twenty of these. "John Anderson may go, John, when we were first acquent; your locks were like the raven, your bonny brow was brent," I murmured. He said I was right, except that the headmaster's name was not Anderson. The trouble with these photographs is that one needs a cloister in which to hang them. The school may be able to accommodate its groups, but the individual is hard put to it to find wall-space. There is, too, the financial outlay involved in framing the picture. These photographs are too big for passe-partout, and a plain wooden frame costs over five times as much as the photograph itself. For these last two compelling reasons I was about to put my latest acquisition into the nearest drawer, trunk or chest, when there struck me an idea so brilliant and yet so simple that I could not imagine why I had not thought of it before. It was just this. Keep one frame upon the wall—one has generaly found room for just one—and change the picture every year. It might not keep a picture palace in business, but it would certainly solve my problem. I assumed that this year's photograph would be the same size as last year's. To within one or two, the number of persons was the same. It *looked* exactly the same size, but was it? I have just, with some difficulty, closed the drawer.

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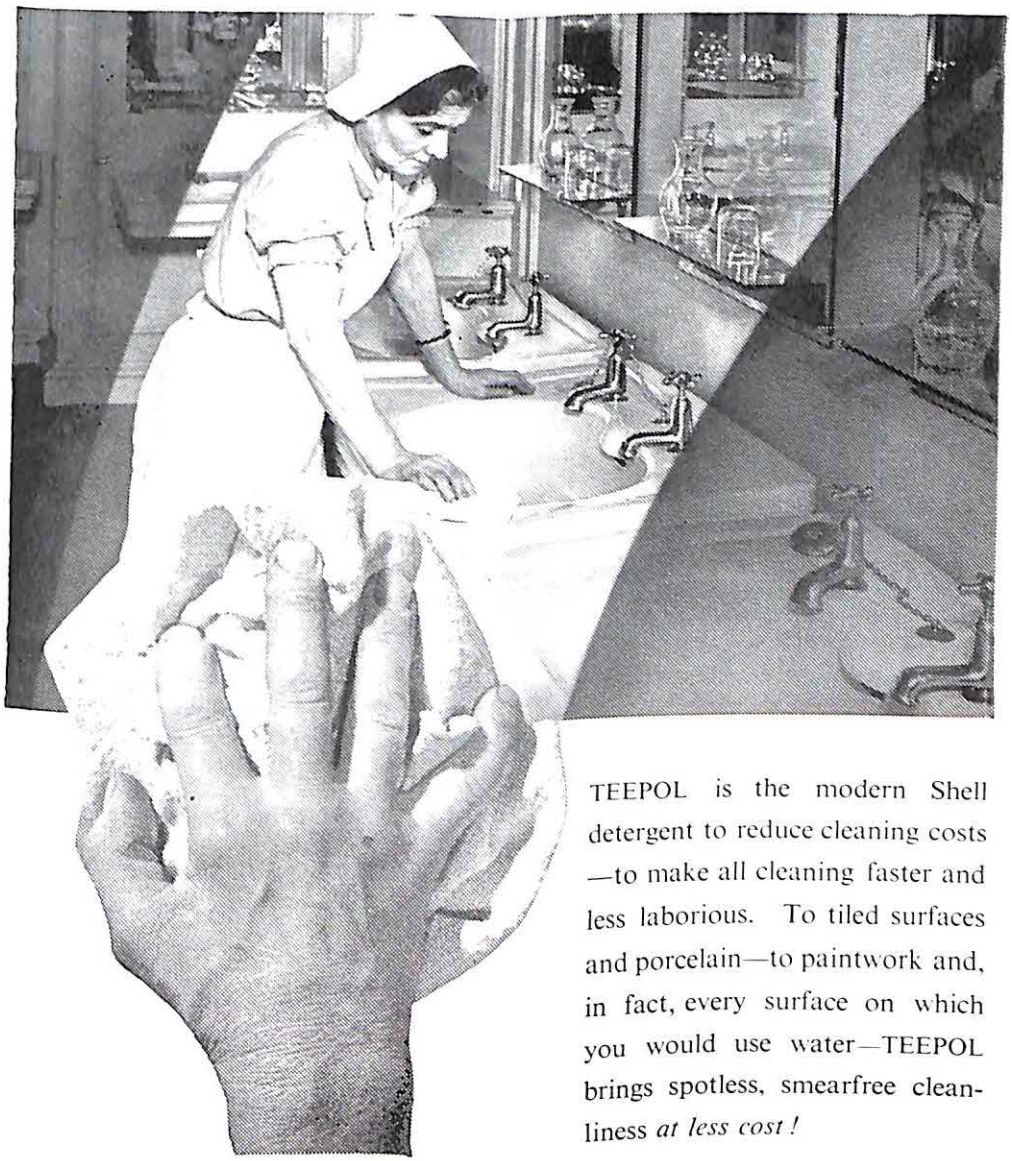

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3 more ideas for

SCHOOL CLUBS

THREE school craft clubs suitable for girls are considered this month. Two —lampshade making and rugmaking— require few tools and negligible equipment and are easily learned. The third—pottery and modelling—is a truer craft needing rather more planning and financing to be successful, but is capable of producing some excellent young craftsmen or women. It also demands a teacher with some ability in pottery to take charge, whereas anyone with skilful fingers and some instructing ability can start a lampshade or rug club and learn the craft while teaching others.

Rugmaking

The most expensive material for rugmaking is the wool, about 4 ounces of wool being required for every square foot of pile rug, of which the foundation is rug canvas. The only equipment needed, however, is a gauge (a strip of wood with a slot to enable wool to be cut quickly into short, equal lengths), a pair of scissors, and a tool known as a latch hook for knotting the wool to the canvas. Each rugmaker will require a latch hook, of course.

Ordinary knitting wool is not really satisfactory, although it can be used in six strands at a time, and rug wool is outside the pockets of most pupils unless parents are prepared to "sub" them in the expectation of a cheap rug at some future date. However, there is an alternative. Attractive and hard-wearing rugs can be made from almost any waste material, such as flannel, stockinette, felt, and other pieces of cloth. Raffia is another suitable material.

A square yard of material cut into strips will make about a square foot of hooked rug. The cost of rug canvas may also be saved by using hessian as the foundation for hooked rugs of waste material. The hessian should be stretched by tacking it on to a wooden frame and narrow strips of the material, cut as long as possible, hooked into a series of loops through the hessian with a simple hooking tool. The technique is described in any elementary book on rugmaking. The hooked material is later cut to form a pile.

The art of rugmaking is largely in the design. Quite attractive "rag mats" can be made from a random mixture of coloured strips, but there is more scope for individual taste and skill in originating patterns. Outlines can be drawn on hessian with chalk.

Among rugmaking methods suitable for club work is weaving. Frames are easily constructed from broomsticks and shuttles made from a strip of orange box wood. String is used for the warp and rug wool for the weft.

Lampshades

A lampshade-making club would normally concern itself only with covering, for wire frames are hardly worth the trouble of fabricating—forming true frames is quite tricky —as they can be bought at reasonable prices. Equipment required is negligible: scissors, razor blade in a holder, bulldog clips, sewing materials, and a holing punch of the turret type for thonged shades. (One punch will do for the whole club.) Materials required are: bias binding (for binding the frame), vellum or parchment (strictly speaking, oiled papers), buckram, plastic sheets such as Crinothene and cellulose acetate, and fabrics (for advanced work). Thonging will also be needed as it is convenient to teach this technique before going on to sewing methods.

The only other material demanded is brown paper and the only other equipment a cushion. These are for making patterns of curved panels, brown paper being placed on the cushion and the wire frame pressed on the paper so that its outline may be drawn in. Patterns are not needed for fabric coverings, which are pinned to the frame before sewing (and are always used on the bias). This is not easy work, however, and it is advisable to start off with something simple, such as thonged Crinothene.

Pottery and modelling

Pottery and modelling as a subject for a club is difficult to better and invariably arouses much enthusiasm and encouraging creative work. But there is a snag. It is

essential to have a suitable kiln. Oil-fired and gas-fired kilns for school use can be purchased, but are not cheap. An efficient brick kiln can, however, be built by amateur hands if a suitable outdoor site is available and a good plan is followed. Another consideration that must be borne in mind is that a brick kiln of this type is fired by coke and coal—both rationed.

For the clubroom, a clay bin will be needed. A dustbin will do but it should be watertight. Clay may be bought, but this is an unnecessary expense for almost any garden clay is suitable or can be made so. After being dug, it must be thoroughly dried and then powdered with a mallet and mixed with water to make "slurry." This is passed through a No. 80 sieve and the water poured off. The slip that is left should be left to dry until it can be worked. If a sample piece of this splits on firing, the clay can be improved by mixing with it a small proportion of kaolin or finely-powdered biscuit (baked but unglazed clay).

Bowls, jugs and buckets will be needed, and also a pestle and mortar. Working and drying bats can be made out of plaster, and it is important to have a damp box for storing partly-finished work if the club does not meet very frequently or only for short sessions. A damp box is any suitable air-tight box provided with plaster slabs on which to stand work in progress. The plaster is kept damp with water. A drying cupboard is also a valuable piece of equipment. This can be home-made by building it over a radiator, leaving open slats at the bottom and a hole in the top to ensure a draught.

Under glaze colours will be wanted and a supply of brushes for painting, and for glazing an atomiser is required. Leadless glazes only should be employed for school work because of the danger of poisoning.

To start, many excellent pots can be built up by the coiling method, and casting is certainly well within the scope of a club. Eventually there will be a demand for a wheel, for throwing is the ultimate aim of anyone truly interested in the craft. With some ingenuity a good treadle-operated wheel can be constructed if funds do not run to the purchase of one. Many club members, however, will find enough interest in tile making (frames are easily made from boards and battens) and decorating, and in the immense variety of subjects for modelling.

Finally, there always remains that final clue to a successful school club, the personality of the person in charge.

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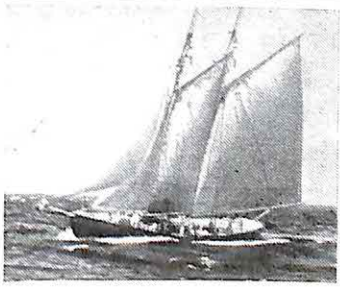

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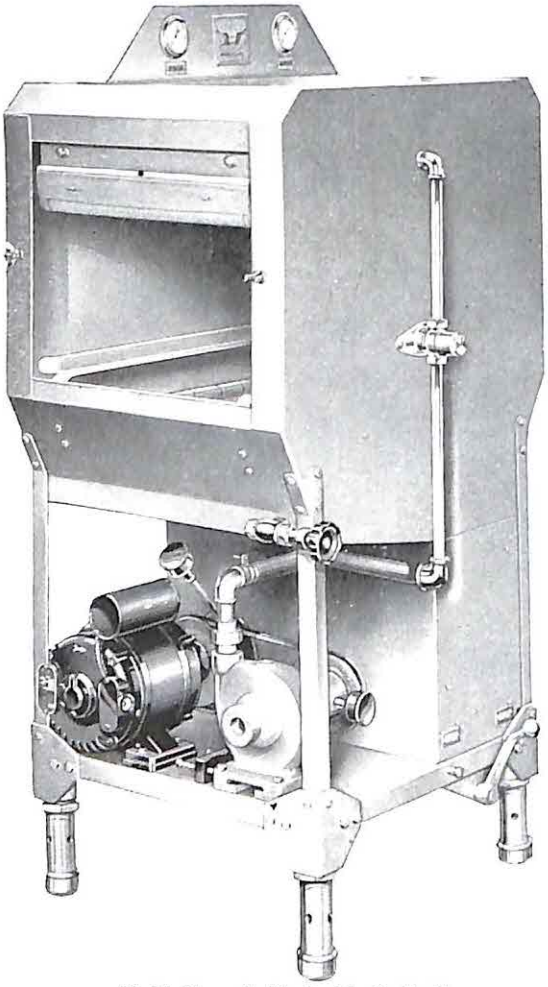

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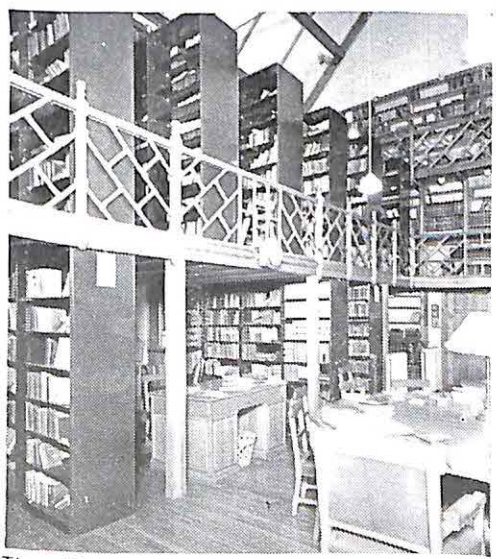

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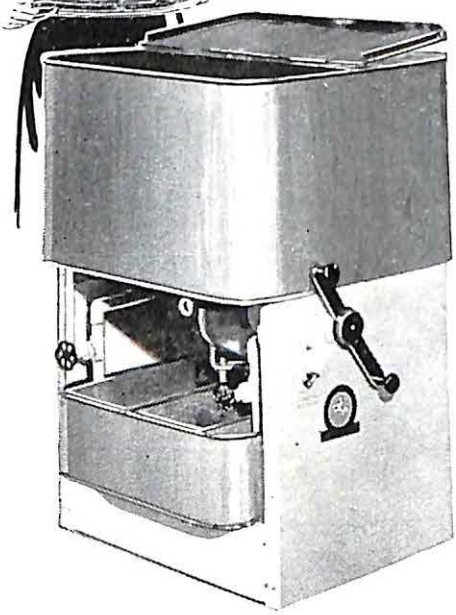

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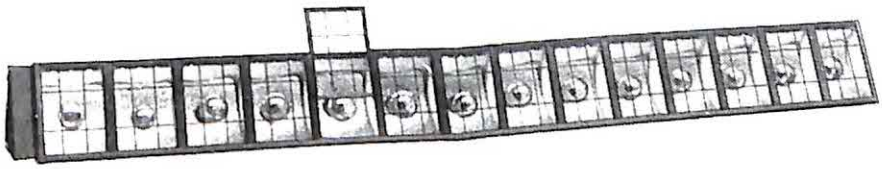

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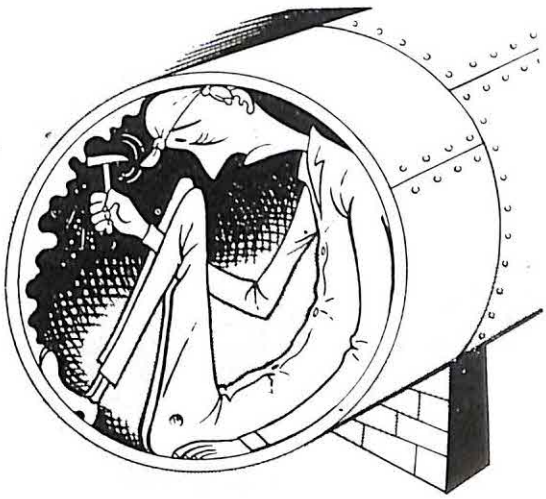

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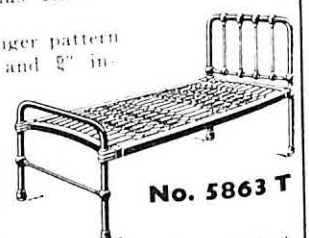

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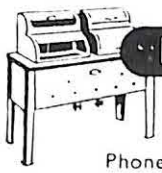

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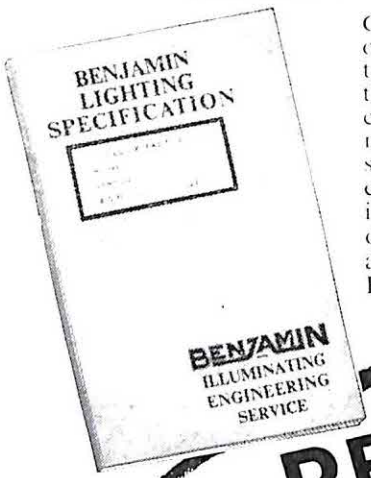

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SCHOOL & COLLEGE MANAGEMENT

Vol. 13. No. 11. One Shilling and Sixpence November, 1953

VPSU 22-12-53

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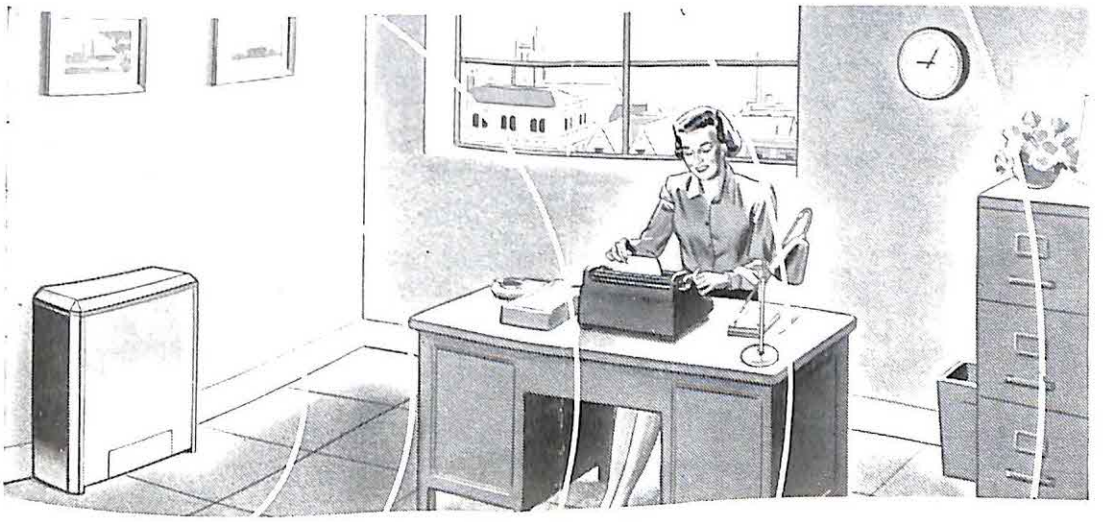
stores heat *during night 'off-peak' periods*

This entirely new G.E.C. Heater stores heat during the night when favourable tariff concessions can be obtained. The G.E.C. 'Nightstor' Heaters provide in effect a central heating system which needs no attention at all. They are cheap to install and economical to run.



gives out heat *during the working day*

Thoroughly charged during the night the G.E.C. 'Nightstor' Heater uses no electricity during the day; but it continues to provide a consistent flow of beneficial warmth everywhere. Your staff are assured of immediately comfortable working conditions. Your fuel bill will be less and you will contribute to the prevention of "smog". *This new and efficient heater is ideal for offices, schools, factories, hospitals etc. The G.E.C. 'Nightstor' Heater can solve your heating problem* this winter! Send for details

Nightstor

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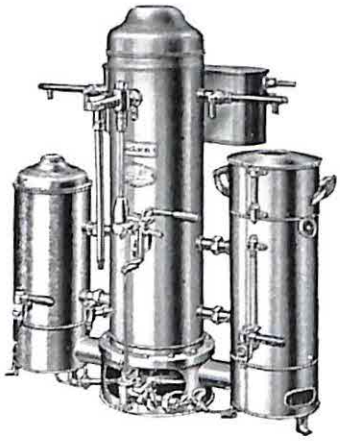

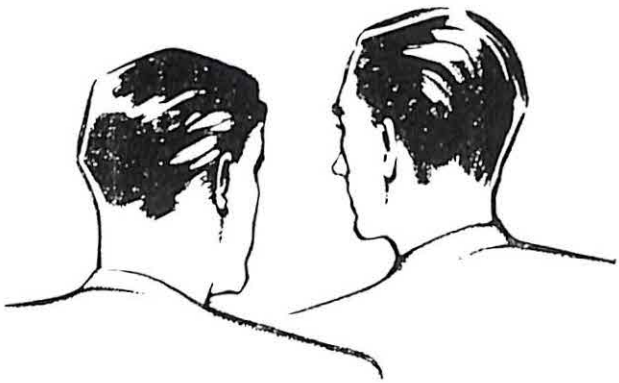

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costs less..

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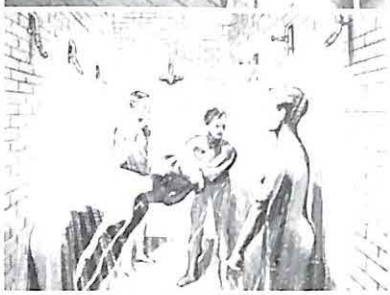
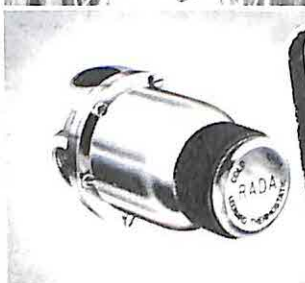
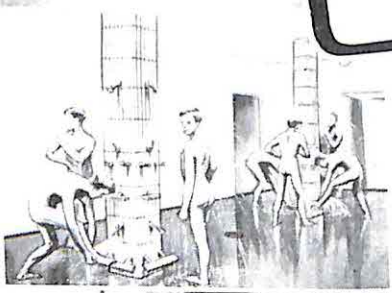
WEETABIX LIMITED · BURTON LATIMER · NORTHANTS







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Leonard
THERMOSTATIC VALVES
for AUTOMATIC mixing of hot and cold water

HOT — LEONARD — COLD

The Leonard Thermostatic Mixing Valve automatically mixes hot and cold water to give warm water at the right temperature for use. The thermostat keeps the temperature of the warm water steady, preventing those sudden changes from hot to cold and back again, which are always uncomfortable and often dangerous. **Fuel cannot be wasted by using water that is too hot.**

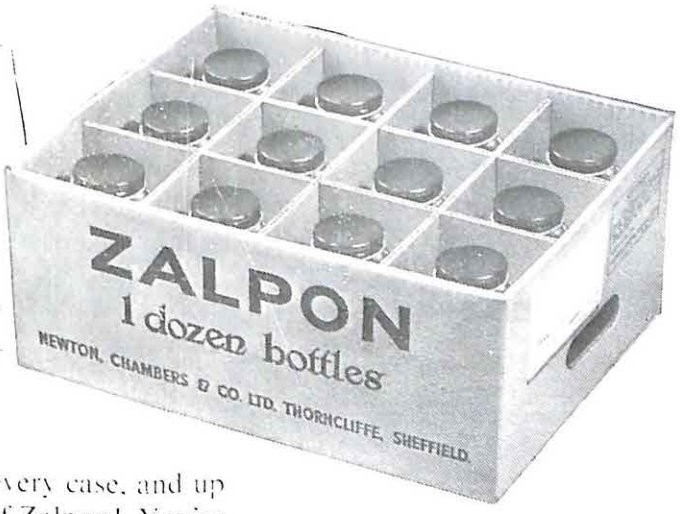
Leonard Thermostatic Mixing Valves are specified by leading architects, engineers, Government and municipal authorities.

Please write for Pamphlet No. 57/A.

WALKER CROSWELLER & CO., LTD.
Whaddon Works, Cheltenham Glos.

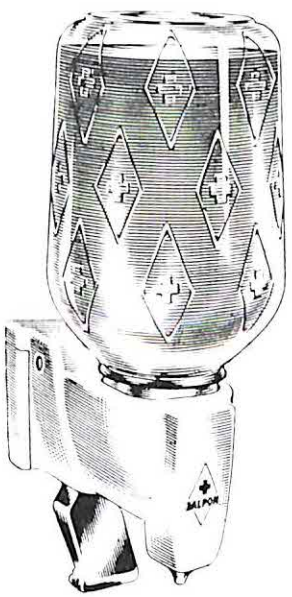
Here come over 20,000 washes!

IT'S
ZALPON
IT
CUTS OUT WASTE



Yes, there are 12 bottles in every case, and up to 2,000 washes in every bottle of Zalpon! You're sure of that because the dispenser can be adjusted to deliver the exact amount to wash a pair of dirty hands.

Another secret Zalpon is a cream, not a liquid soap, so it doesn't run away through your fingers. There's no waste with Zalpon!



CAN'T BE PILFERED

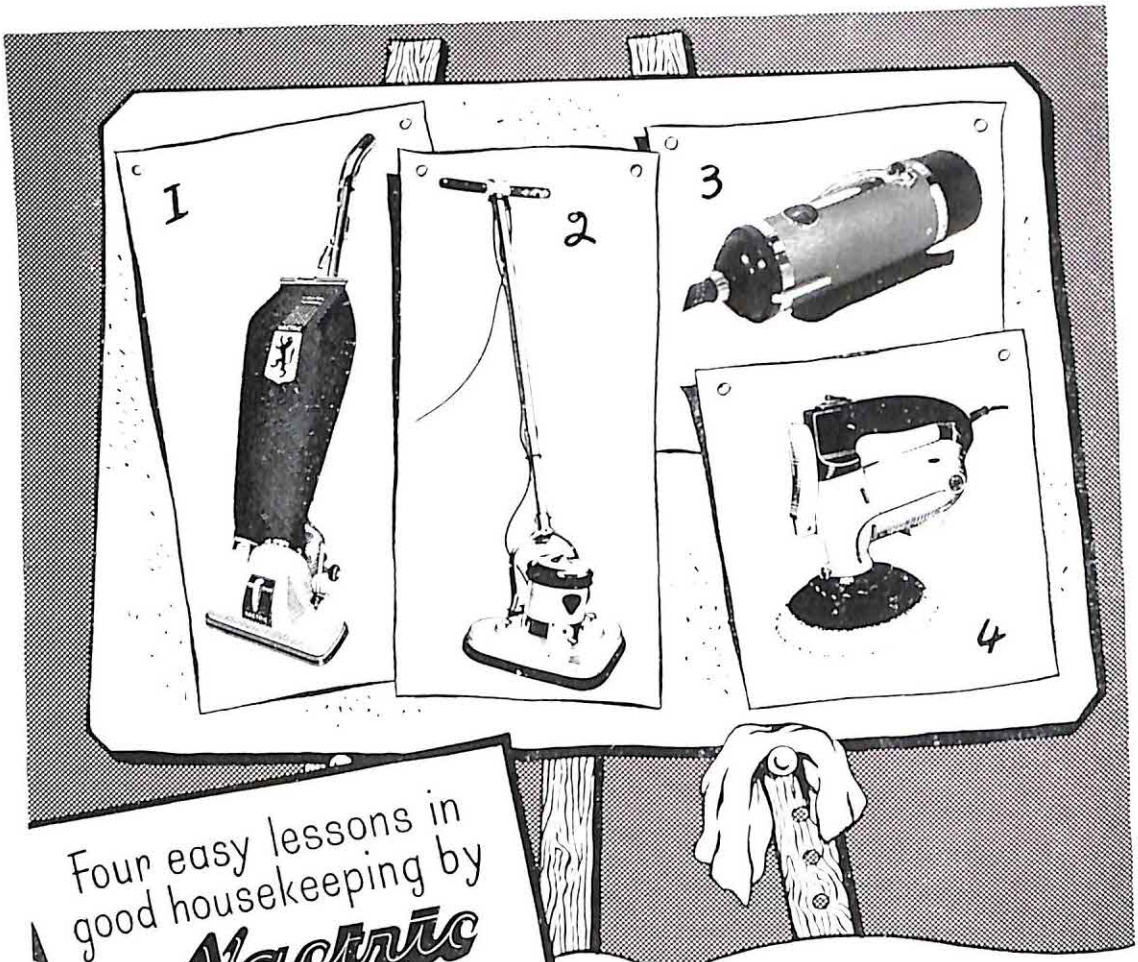
The dispenser locks into the wall, the bottle locks into the dispenser. It's absolutely safe!

"Zalpon seems marvellous to me — I wonder why nobody thought of it before?"

ZALPON the new way of washing

Ideal for Schools, Offices, Factories,
Hotels, Cinemas, and all public washrooms.

NEWTON CHAMBERS & COMPANY LIMITED, THORNCLIFFE, SHEFFIELD



Four easy lessons in good housekeeping by the Vactric master craftsmen

LESSON 1 **VACTRIC Model R.53**

This upright model is attractively styled in contrasting maroon and golden dimenso. Incorporates Vactric 'Vibro-Action' which 'flutters' out the deepest dust and dirt from carpets. Adjustable for different thicknesses of pile and cleaning under low furniture. Women especially appreciate its lightness—it weighs only 15 lb

LESSON 2 **VACTRIC Electric Floor Polisher**

Three brushes, two revolving clockwise and one anti-clockwise allow the polisher to move easily over the floor. No pushing—you just gently steer. Gives a rich gloss in minutes instead of hours. Triangular design of base makes polishing of corners easier.

LESSON 3 **VACTRIC Model W.202**

The cyclinder cleaner with the strongest suction of all. Including 5 Dusting Tools and Anti-Moth Vaporiser in self-contained special carrier pack—for all home cleaning from floor to ceiling. Spray unit available.

LESSON 4 **The VACTRIC 'Multipol'**

This wonderful light industrial tool saves time, labour and money for motorists, model makers and those concerned with home repairs. It is the ideal all-purpose car polisher and bench tool. Robust, durable and easy to handle.

It's the easiest of tasks to keep large buildings bright and clean with Vactric. These amazing electrical-housekeeping aids do all the hard work of dusting, polishing and cleaning, quickly and without effort. Made by expert craftsmen, they pass the closest examination with honours.

Vactric

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VACTRIC LTD.

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"MAXIMUM PROTECTION AGAINST WEAR AND TEAR..."

A tribute to Johnson's Traffic Waxes from St. Vincent's School

Every day, in offices and public buildings, in countless places where large floor areas have to stand up to heavy traffic — you'll find Johnson's Traffic Waxes on the job.

For many years now, Johnson's have made a special study of just the problems your floors have to face. They have produced a range of waxes to suit your type of flooring, whether of wood, lino, rubber, plastic tile, asphalt, terrazzo, cement, cork or composition. Johnson's Traffic Waxes are hard-wearing, long-lasting and require the minimum buffing to produce a brilliant shine. And because they are easily and swiftly applied, they save time and labour costs. If you have a floor maintenance problem, write to the Maintenance Products Division—they'll gladly give you expert advice.

Telephone:
LITTLE GREEN, (School House) GOSPORT 89011.
BEECHCROFT HOUSE, GOSPORT 8057. (Senior Boarding House)
ANGLESEY HOUSE, GOSPORT 89359 (Junior Boarding House)

ST. VINCENT'S SCHOOL,
ALVERSTOKE,
HANTS.

20th August, 1952.

Dear Sirs,

We have now had the opportunity of giving your Traffic Waxes a thorough test at St. Vincent's School, and we would like to say how pleased we are with the results.

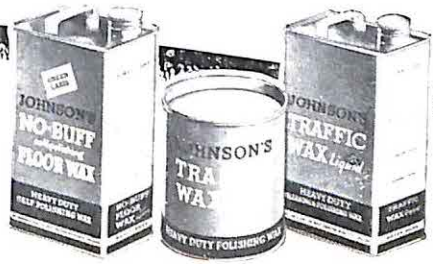
We find that your Wax Products are extremely easy to apply and polish up. Moreover, they give a hard surface which is easy to keep clean and affords maximum protection against the considerable daily wear and tear of school life.

Yours faithfully,

C. N. Tool-

Principal.

Messrs. S. C. Johnson & Sons Ltd.,
West Drayton, Mddx.



FREE!

This new leaflet tells you all about the Johnson way to clean and maintain your floors. A copy will be sent free on request.

NO-BUFF
Self-Polishing Wax
For rubber, plastic tile, lino and asphalt flooring. Shines as it dries — needs no rubbing or polishing.

TRAFFIC WAX
Paste
For extra protection in heavy traffic lanes on wood, cork, lino, etc.

TRAFFIC WAX
Liquid
For all wood, lino, cork, etc. Cleans as it polishes to a protective hard-wearing surface.

JOHNSON'S TRAFFIC WAXES

A WAX TO SUIT EVERY FLOOR

S. C. JOHNSON & SON LTD.
WEST DRAYTON, MIDDLESEX

SCHOOL FEES REMISSION SCHEME

For 26 years this scheme arranged by us has coped successfully with the problem of remitting fees when pupils are absent. Most I.A.P.S. and Public Schools numbering over 1,500 have been using this scheme for many years. It is now an institution and up to date claims amounting to over £1,500,000 have been paid.

THE SCHOOLS COMPREHENSIVE POLICY

Specially designed by us to suit the requirements of schools in the light of experience over 20 years. Combines all essential school insurances such as Fire, Burglary, Employer's Liability, Legal Liability and Loss of Profits in one document. It costs less to insure this way and the protection granted is much wider.

HOLMWOODS & BACK & MANSON LTD. (SCHOOLS DEPARTMENT)
Bell Street, Reigate, Surrey.
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London Office:
85 Gracechurch Street, E.C.3
Tel.: MANSION HOUSE 4471

THE EDUCATIONAL ENDOWMENT PLAN

for the provision of fees at Preparatory and Public Schools, Universities, etc. This plan has been arranged to lighten the burden of school fees for parents who pay out of income and to ensure fees for the full period of a child's education.

The advantages to the Parent are:-

1. SPREAD-OVER OF PAYMENTS
   The cost is spread from the inception of the policy until the child *leaves* school or university.

2. LOWER COST AND MORE SECURITY
   The total cost of a child's education is less, even though, should the parent die, no further premiums are needed and the payment of fees is guaranteed.

3. INCOME TAX RELIEF
   is granted on payments made by the parent.

THE SINGLE PAYMENT PLAN

By which the School Fees can be assured by a single capital sum paid in advance, either before the child goes to school or during the child's school career.

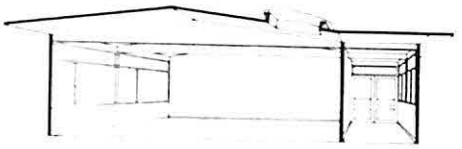
The advantages of this Plan are:-

1. LOWER INITIAL COST
   The capital sum required is less than the actual fees.

2. SECURITY
   The termly payments are of guaranteed amounts, and cannot be affected by capital depreciation.

The Plan can either be operated by the School or individual Bonds can be arranged for parents.

For fuller information apply to:-
THE I.A.P.S. TRUST
85 Gracechurch St., London, E.C.3



Classroom and corridor, using units of 24 ft. span (pitched roof) and 6 ft. span (flat roof) respectively.

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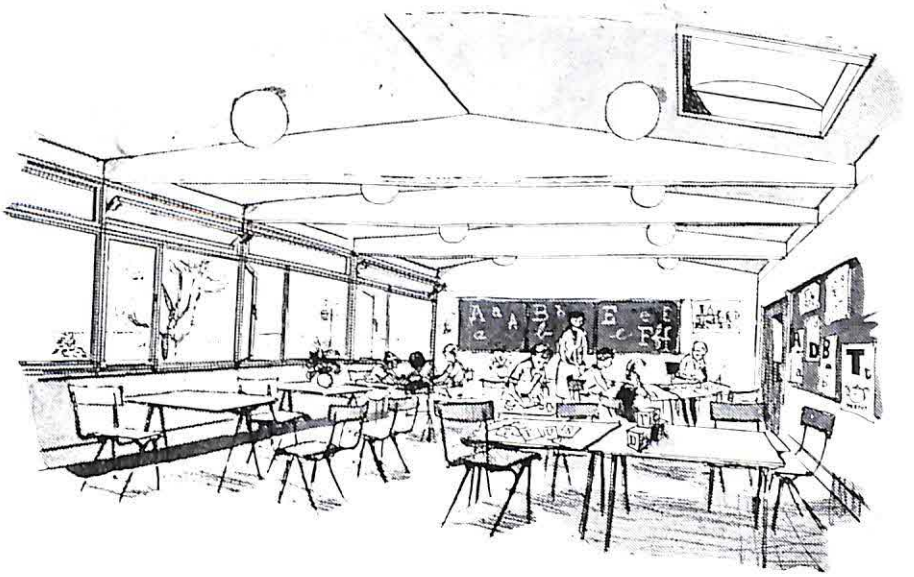
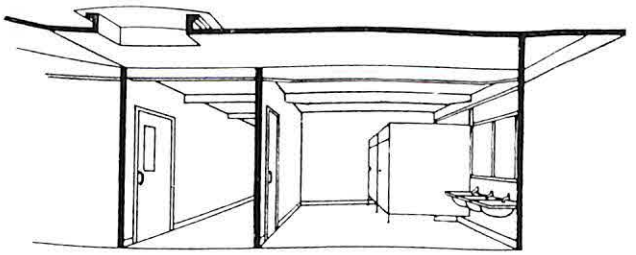
Permanent schools of modern design at far less cost

The Medway Mark IV system will provide permanent schools of any size to suit any site, schools which are attractive and efficient from every point of view. Despite the flexibility of the system the cost of the Mark IV schools is appreciably less than any other building method.

Low cost has been achieved by advanced production methods and by a design which minimises site-work expenditure. Technical staff are available to co-operate freely with Local Education Authorities during planning. Supply and erection of shell buildings can be undertaken anywhere in Britain.





A 12 ft. span (flat roof) addition to the 6 ft. access corridor. In this case the corridor is provided with curved "Perspex" ventilated roof light.

MEDWAY BUILDINGS AND SUPPLIES LIMITED

15 PHŒNIX WHARF, ROCHESTER, KENT. *Telephone: Strood 7521*

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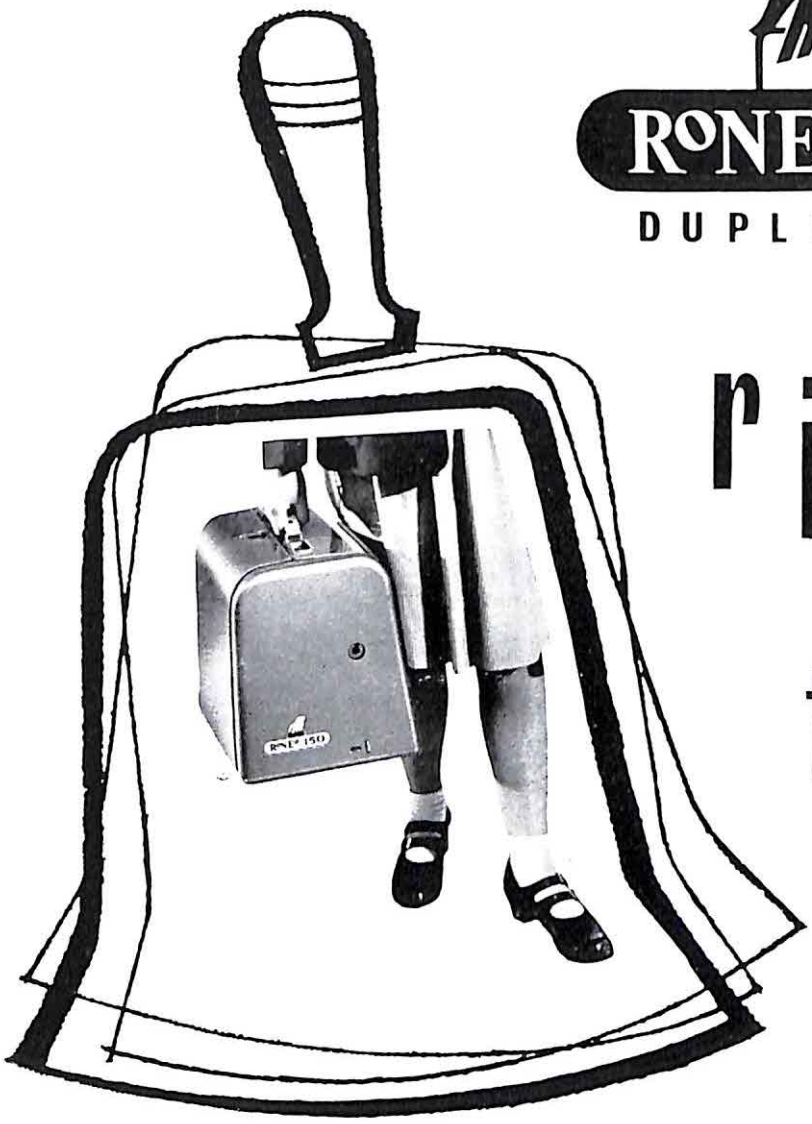
RONEO 150
DUPLICATOR



rings the bell

. . . . the school bell.

This portable duplicator with its automatic inking, its remarkable economy and simplicity of operation, is particularly suitable for school work. Although it is so compact, it duplicates (typematter, photographs, manuscripts, maps or diagrams) on paper up to 13″ x 8″. The price is reasonable and there is a generous special discount to schools. Write today for full particulars.

RONEO LTD · 17 Southampton Row · London · W C 1 · Tel. Holborn 7622 · Branches throughout the country
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Domestos & Stergene

These two products, either individually or in combination, provide all the cleansing aid likely to be required for maintaining a state of immaculate cleanliness in public buildings, offices, hospitals, schools, institutions, etc. High concentration makes them exceedingly economical and very small quantities are sufficient for all cleaning operations.

Domestos and Stergene are particularly recommended for canteens and for all catering establishments and **"Catering Hygiene"** explains how they may be used to implement the recommendations of the Catering Trade Working Party ; a copy will be forwarded on request.

"Catering Hygiene" summarises the recommendations of the Catering Trade Working Party appointed by the Ministry of Food and shows how those recommendations may be put into practice in a simple and economical manner.

DOMESTOS : A powerful hypochlorite possessing disinfectant properties of a high order. The most efficient sanitary cleanser available; its use in public and staff toilets and lavatories being an assurance of scrupulous cleanliness.

STERGENE : The remarkable liquid soapless detergent so successfully used in canteens throughout the country. Ideal for dishwashing by machine or by hand; will not harm operatives hands. Unsurpassed as a grease remover.

DOMESTOS AND STERGENE MAKE LIFE CLEANER

DOMESTOS LIMITED, INDUSTRIAL DIVISION, COLLEGE WORKS, NEWCASTLE UPON TYNE, 6.

GENERATIONS OF YOUNG BANDITS may do their worst with ink, paint and anything else that comes to hand, pen-knives included, but the desk with a 'FORMICA' top comes through it all, still smiling. For every surface that gets hard wear this tough satin-smooth laminated plastic veneer brings a new look that *lasts*. It soon repays its cost in savings on cleaning and maintenance. An occasional wipe keeps it glowing. It is virtually stain-proof and chip-proof. In fact it might have been made specially for school desks, tables, benches and walls—a permanent hygienic decoration that goes on serving and saving year after year.

Make a test : have a few old desks resurfaced with 'FORMICA' Laminated Plastic and discover its virtues for yourself.

QUICK FACTS ABOUT 'FORMICA'

WHAT IS IT? A smooth decorative board or veneer made from paper bonded with resins under heat and pressure.

HOW IS IT USED? For colourful, hygienic decoration of any surface that gets hard wear.

HOW DOES IT SAVE MONEY? Lasts indefinitely — does not stain, does not chip or craze; cleans at a wipe, needs no maintenance.

HOW ABOUT COSTS? The first cost is more than for some alternative materials — but the first cost is the last cost.

FORMICA LAMINATED PLASTIC MADE BY DE LA RUE LONDON

puts you years ahead

'FORMICA' *is a registered trade mark and Thomas De La Rue & Co. Ltd. is the registered user.*

For full information please write to: **THOMAS DE LA RUE & CO. LTD.** (PLASTICS DIVISION) IMPERIAL HOUSE, 84-86 REGENT STREET, LONDON, W.1. TELEPHONE: REGENT 2901

SCHOOL & COLLEGE MANAGEMENT

Contents

Making an Appointment—Frederic Evans gives useful points for selecting the right candidate 483

People and Events 485

A New Approach to Music is outlined by J. McKay Martin in his first "break away from tradition" article 486

Income Tax — An expert gives the benefit of his knowledge to help you hold your own 488

Foot Troubles — their causes and prevention are dealt with by Dr. R. E. Smith and the British Boot and Shoe Research Association . . . 489

Compost and Health are closely related as is adequately proved by W. E. Shewell-Cooper, M.B.E. 493

Winter Puddings — Elizabeth Midgley again contributes some certain winners for the housekeepers' notebook 495

Breakages are a constant problem with all school administrators, the Bursar goes more than half-way to solving it 497

Laundering Winter Woollens — a timely reminder of do's and don'ts . 499

How Much Should a Child Drink? — Professor V. H. Mottram makes no hard and fast rule and advises you not to 500

A Press Cutting Library Free and this is how 503

Eva Went to School in Slacks — this controversial question is analysed by C. L. Berry 505

The Maintenance of School Lavatories 507

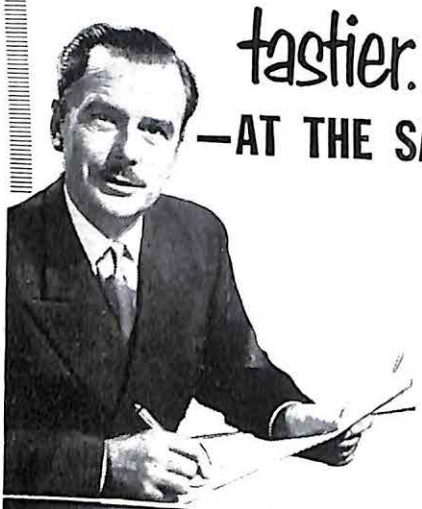
Sugar Galore and galumptious ways of using it 508

What You Should Know About Heating is fully explained by a heating expert 516

Vol. 13 *No. 11* *November, 1953*

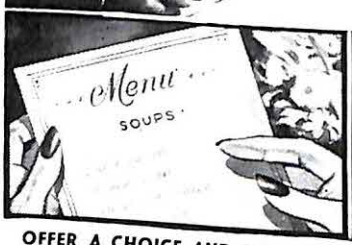
Now-you'll find Symington's Soups tastier...better than ever!

—AT THE SAME LOW PRICE AS BEFORE



EVEN better meals—of course, that is what you like to serve. Usually a markedly improved quality results in extra cost. But not this time—not with these improved Symington's Soups. For, though *more* choice ingredients—at last freely available—have gone into them, their price remains as low as ever. Yes, they're both economical and *really* delicious. Just you taste them . . . serve them . . . *you'll see.*

There's a choice of Tomato, Oxtail, Kidney, Mock Turtle, Green Pea, Mulligatawny, Pea, White Vegetable, Hare, Lentil and Celery flavours. In 7-lb. bags at 14 7d., 7-lb. tins 15 2d.



OFFER A CHOICE AND STILL SAVE

Soup is the first thing people see on your menu—and they do like a choice. Now, all can have the flavour they like, for with Symington's Soups you will find it cheaper and easier to serve a choice, with or without your stockpot.

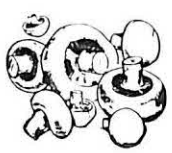
. . . AND FOR MEAT COURSES

For the tastiest gravy you have ever served, there's Sym Gravy Powder. It flavours, thickens, browns *all in one.* Use it too, with made-up dishes. You'll find it improves them, makes them tastier. 7-lb. bag 9/11d., 7-lb. tin 10/6d.

DELICIOUS SWEETS AT LOW COST

Table-Creams that melt in the mouth ... rich blancmanges ... fresh flavoured jellies—*everyone enjoys Symington's sweets.* They save *you* money, time, fuss. Serve Symington's smoother, creamier Custard too. Customers simply love it.

SYMINGTON'S Soup-to-Sweet Service



delicious mushroom flavour

Caterers everywhere have been quick to try Symington's new Mushroom soup. And quick to re-order too! Customers praise its superior mushroom flavour. In 7-lb. tins at 30/8d.

GRANULATED GRAVY IMPROVER gives rich colour and flavour. 7-lb. tin 8/9d.

CUSTARD POWDER Smoother . . . creamier . . . your customers will love its rich flavour. 7-lb. bag 6/11½d., tin 7/6½d.

CORNFLOUR — 7-lb. bag 6/3d., tin 6/10d.

BLANCMANGE POWDER— 7-lb. bag 7/10d., tin 8/7d.

TABLE-CREAMS — 8 delicious flavours. 7-lb. tin 15/-.

JELLY CRYSTALS— 8 fresh tasting flavours. 7-lb. tin 15/9d.

PREPARED PEA FLOUR — 1-lb. bag 20/- per doz.

CLEAR SOUP CONCENTRATE — Quart bottle 12 8d., pint 6/10d.

ASPIC JELLY POWDER— in 2-lb. tin 6/9d. per lb., 7-lb. tin 6/6d. per lb.

YOU SAVE TIME AND TROUBLE — GET CATERING ADVICE FREE

Symington's help you to plan your menus — from soup to sweet. So you can get high quality, quickly prepared, delicious foods at competitive prices from the wide range made by Symington's.

If you are not already being called on, send us a postcard. And samples of any product will be readily sent on application, to bona fide caterers.

If you send us tender forms, we shall be glad to arrange quotations on bulk quantities.

SYMINGTON'S
Service to Caterers

W. SYMINGTON & CO. LTD. (DEPT. C.23)
MARKET HARBOROUGH, LEICESTERSHIRE. ESTABLISHED 1827

MAKING AN APPOINTMENT

Enthusiasm in a schoolmaster is as important as knowledge. So is a sense of humour and fun. Do you ask the questions which give the Candidate a chance to show that he possesses those rare personal qualities we look for in the best of our teachers?

THE first consideration in making an appointment to the teaching staff is to come to a clear-cut decision as to the kind of master or mistress that is required. It is rarely wise to say: "I'll see what sort of applications come in and decide what suits me then." When the precise needs of the school which the new appointment is to meet are decided then an advertisement or statement of requirements can be drafted which will limit the applicants to those actually suitable for the vacancy.

The advertisement will give this information, of course, in a kind of "telegraphese" since advertising in the national journals is very expensive. In addition, it is well to draft a complete statement or conspectus of the qualifications looked for, the character of the duties in some detail and the conditions of the appointment in respect of salary, increments, pension, hours of duty, holidays, etc. It is at the very start that applicants for teaching appointments should know all these things. It is unwise to let them emerge piecemeal later on.

Whether a form of application is used or not matters little. Probably for independent schools the head or the governing body will learn more about the applicant if he is left to draft his own application so long as the precise queries or conditions laid down in the conspectus are answered. The logical and concise setting out of essential information is in itself a good test of the candidate's character and clarity of thought. While testimonials are not to be despised, it is certain that "referees" who report on the applicant under confidential cover are far more valuable in providing evidence of ability and character. To make a good appointment the extra trouble of consulting referees *of standing* is well worth while. There are many people with attractive paper qualifications who lack the qualities which make them good masters or mistresses. It is usually a referee who can supply such information as a rule—apart from the "case history" which the completed application is, in a sense. For example, a candidate, who has changed appointments very often and at short intervals, is rarely a good risk although it is well to remember there may be, in exceptional cases, quite sound reasons for these changes.

The completed applications, testimonials and referees' reports can tell the Head much about the candidates who are applying, even before he has seen them. There is the application which is so full as to be flambuoyant or ostentatious and there is the one so sketchy and careless as to be properfunctory. Beware of the applicant who sets out, qualifications particularly, in a manner which is ambiguous—one never being sure whether the examinations have been sat only or actually passed. The handwriting and the setting out will give indications of the orderly or less orderly mind. The application which has just been "dashed off" is likely to be from a candidate not seriously concerned with succeeding in the deeper sense in his adopted profession.

Yet even these indications are far from being infallible. Many a very successful schoolmaster has filled in applications in an untidy manner although, generally speaking, these things go together. There will, at least, be evidence in such an untidy application of real personal achievement, while the over-meticulous statement may indicate something of pettiness, inferiority

by Frederic Evans, M.B.E., M.A.(Cantab.)

or narrowness of outlook. It is a case of balancing one thing against another when making the selection for the short list of those to be interviewed.

The interview is, of course, crucial. Here is where personality, force of character, loyalty, reliability and personal acceptance are judged. If the interviewing is being done by a board of some kind then the chairman would be wise to let the questioning go round in order, leaving adventitious questions until the last. It is a good way to put the candidate at his ease by asking him first to recount briefly his academical and professional career. This gives confidence and helps the candidate to gain his poise. His (or her) statement should be listened to with obvious interest by the interviewer or interviewers. Lack of attention at this stage is not only disturbing to the candidate but also discourteous. It does not matter that it is all down in the application—what matters is the personal statement and how it helps the interviewers to know something of the personal qualities of the candidate for, in the schoolmaster, qualities are more important almost than qualifications.

Readiness to continue learning . . .

The questions which follow should be specific in the main. They would be concerned with such things as:

Elucidation of points not, perhaps, clear in the application.

A following up of some statement of the candidate in which he has displayed a consummate interest in something. (Consummate interests in anything having a bearing on school work are of great value in a teacher.)

A sense of humour, a liking for children and for teaching, a sense of vocation—that kind of thing. Is discipline easy and kindly?

The relationship of the subjects which the candidate is especially qualified to teach with other subjects and activities in the school curriculum. (Sometimes candidates have not thought of this at all.)

The readiness of a candidate to work up subjects ancillary or associated with his particular academic background—in short, a readiness to continue learning himself and not regard his training as finite and final.

The readiness of the candidate to take, readily and loyally, his full part in the social and cultural life of the school. (Some teachers think of their job only as the imparting of a strictly limited piece of wordy or quantitative knowledge without any concern for the personal development of their pupils or for the interests of the school as a whole.)

The interest taken or study made by the candidate of the profession of teaching as a scientific job—or at least as a skilled art. What training and experience as a *teacher* has he had and what does he do to make himself, through reading for example, a skilled *practitioner* as a schoolmaster?

The interests of the candidate in the arts, in the crafts, in music—in anything. That is, how far is he a cultured person and not merely a store of word knowledge?

The answers to the questions to ascertain these things will bring out those rare personal qualities we look for in the best of our schoolmasters and schoolmistresses if they are present in any degree. When the candidate exhibits enthusiasm for anything, then the questions should encourage him to develop his replies along that particular line. Enthusiasm in a schoolmaster is as important as knowledge. So is a sense of humour and of fun. Avoid the dour, humourless candidate who never seems to have smiled—at least, that is my advice.

At this stage will come one or two points to be put by the Head. These should make quite clear to the candidate what would be expected of him if appointed. It is better to say more than less at this stage. Nothing causes more heart-burning subsequently than the feeling in a new member of the staff that he is being *required* to undertake more than he bargained for. A relaxation later of the requirements originally stated is better.

. . . to grow in the job

In residential schools, especially, the candidate who is likely to become the "staff room lawyer" is best avoided even though academically he may be very well qualified—indeed, he very often is! Granted the initial and necessary qualifications—loyalty, a readiness to grow in the job, humour a sanguine or optimistic outlook and a consummate interest in something of cultural or social value—these are more important than a plethora of degrees, diplomas and certificates. In making appointments to the teaching staff the search should be for such qualities as these and this applies equally to men and women. As to the specific needs of girls' schools—those are not for me to presume to discuss here even though I might have a few ideas about them in my mind!

People and Events

DATES FOR YOUR DIARY

November 2 to 21.—Royal Drawing Society's Exhibition of Children's Paintings at Cumberland House, Southsea.

November 18 to December 24.—Royal Society of Portrait Painters' Exhibition at Royal Institute Gallery, 195 Piccadilly, London—an opportunity to see contemporary work and, perhaps, choose your painter for that school portrait.

December-April, 1954.—Fourth National Exhibition of Children's Art in Wales, Royal Cambrian Academy, Plas Mawr, Conway.

November 16 to 20.—London Medical Exhibition at New Horticultural Hall, Vincent Square, London.

November 14 to 21.—Cycle and Motor-Cycle Show, Earls Court, London.

November 18 to 28.—Fuel Efficiency Exhibition, City Hall, Deansgate, Manchester.

November 18 to December 2.—Building Exhibition, Olympia, London.

November 7. — Hockey. Southern Counties Women's Team v. U.S.A. Team: Worthing, Sussex.

November 25.—Rugby Football. Glasgow v. New Zealand. Glasgow.

November 28.—Rugby Football. South of Scotland v. New Zealand. Galashiels, Scotland.

November 9 to 14.—Tennis. Covered Courts Open Tennis Tournament, Palace Hotel, Torquay, Devon.

December 18 to January 30, 1954.—Bertram Mills Circus, Olympia.

December 29 to January 7, 1954.—International Chess Congress. Hastings, Sussex.

December 1 to 20.—International Photographic Exhibition, Manchester.

Mr. Peter Hadley has rescued from obscurity a remarkable diary kept by a schoolboy at Lancing in the 1860's, "Sam Brooke's Journal," Sam began his diary when he was sixteen. A sample of Sam's perception: "There are exhaustive divisions of boys and when you have divided the race into sentimental, frolicsome, religious, muscular, vicious and pudding-eating, you have done all you can do." The diary was recently published in aid of The Friends of Lancing Chapel.

* * *

Christ's Hospital have marked their quater-centenary by collecting the writings about the school by past and present Blues; "The Christ's Hospital Book" is published by Hamish Hamilton at 25s. Leigh Hunt's is by no means the last word but he says for many : "I love and honour the school on private accounts, and I feel a public interest in its welfare, inasmuch it is one of those judicious links with all classes, the importance of which, especially at a time like the present, cannot be too highly estimated."

We like to include notes of the activities of as many schools as possible in this feature. Schools can help to keep us informed about these events by sending to the Editor school magazines. Will your school secretary put us on your "mailing list"?

A New Approach to

We welcome to this issue the first of a new series of articles by J. McKAY MARTIN. Mr. McKay Martin, a former pupil of Vaughan Williams, taught at Sutton Wallace and St. Pauls. He is now an executive of the Association of County Music Teachers.

IN 1932, Dr. Vaughan Williams went to America to lecture to teachers and students at Bryn Mawr College, Pennsylvania. One of the many good things he said was: "The best form of musical appreciation is to try and do it for yourself—if I were to visit a strange country and wanted to find out if it had a real musical life, I should not go to the great cities with their expert orchestras, their opera houses and their much-advertised celebrity concerts, but I should go to the small towns and villages and find out whether music was a normal form of recreation."

In this age of the gramophone and wireless, the temptation to be a mere listener is very great. Coming from such an authority the words I have quoted have, at this time, a special significance, particularly for those engaged in teaching music in schools. Music is action; it is not a passive form of enjoyment and the best appreciation lesson is one in which teacher and taught together try to make music. Music is sound and nothing else. The five lines and black spots on the printed page are not music. They are no more than a guide for the performer. It is true they can be read silently by the initiated and it is possible with experience to get a good idea of what is going on. It is possible to get an idea of the general lie of the country by looking at a map. But the *vital* beauty cannot be so expressed; neither can the *vital* beauty of music be fully appreciated until it is heard. And to the many who will take music into their lives as a means of spiritual refreshment and recreation, much will be added to them if they can make music for themselves and, most especially, with others.

With others! Therein lies a great truth. Music is essentially a social art. It is also (I quote Vaughan Williams again) "the art of the humble." And in schools, this social art is expressed mainly in the school choir and the school orchestra.

Let the children sing

Let us take the choir first, for singing is the most natural form of musical expression. Most frequently the choir is made up of "picked" voices—the best in the class. May I make a plea that as many as possible are drawn into the choir, even if a select group is kept for special occasions? Practically every child *and most adolescents* can sing. Not, perhaps, always with that beauty of tone every teacher and listener rejoices to hear. But the primary object should be to encourage a delight in making music; making it, of course, as well as possible and working to achieve good results, not merely to produce a show piece. A far-away ideal you say? I wonder if you would think so if you had heard the *whole* school at Oundle, under the late Clement Spurling, sing the opening chord of the B Minor Mass of Bach without a note of preparation being sounded in the hall, and sung in tune and without hesitation!

Time is often quoted as being the music teacher's greatest enemy. So many things are going on, so many other school activities, some very essential, leave only a minimum of time for music making. In this respect schools differ widely, but in at least one which had about as full a timetable as any, I have seen it was possible to get most of the singers together for a

MUSIC

quarter of an hour every day—in this case from 8.45 a.m. to 9 a.m.—a bad time for singing (but never mind)—which added an extra 1¼ hours to the official 2-hour rehearsal time a week. It had the advantage of being short, too short, perhaps, to do much, but within those times and with an additional couple of hours or so (specially allowed) on the day before a concert the singers managed to make a passable job of Parry's *Blest Pair of Sirens* and Vaughan Williams's *Toward the Unknown Region.* And it was *regular.* Whether many or few came, the practice was held. Attendance was not compulsory. One morning there would be ten, on another fifty or more. But the habit of dropping in and singing caught on, and slowly, and not without many ups and downs, a tradition began to grow. Short and regular practices are much better than isolated long ones, and I suggest that as much actual *singing* as possible is done and that the teacher talks as little as possible. Too much explanation is time wasted. See that essential instructions are given clearly and to the point and (although we all do it) don't say "sing that again" without having indicated the fault or faults which have to be corrected.

Developing taste

The choice of music is important, not only from the point of view of musical standards, but also in relationship to interest. With the young choir, it is good that they should get to know as many fine tunes as possible for it is in this way that they will be helped to build up a repertoire of music from which taste and knowledge can develop. At the age of 10 or 11, a good tune learnt and sung with enjoyment is worth a great deal of later appreciation talk. Taste, like most things, is formed largely by doing. Later explanations can predispose towards the good, but nothing can replace experience, particularly early experience. There are multitudes of fine tunes available, some original, some of folk origin (*Greensleeves,* lovely though it is, might be given a rest), carols for all seasons, not only Christmas, and hymn tunes a-plenty.

Every music publisher's educational catalogue is a mine of information and, if not always a fruitful field, at least challenges exploration. There is more than enough listed to enable every teacher willingly to acquiesce in the late (but now nearly forgotten) John Farmer's dictum (*vide* Dr. Ernest Walker) that "at any conceivable stage of the musical education of any conceivable person, there is no sort of reason why a note of music should be heard which that person, when a grey-haired veteran would be ashamed to hear again." Selection is the real problem. Every school and circumstance varies and it is beyond the scope of this article to attempt to give detailed and particularised information. But a few general suggestions may give pause for thought and reconsideration.

Get off the beaten track

For young singers choose simple, straightforward music (not to be confused with sham-easy) with good, well-defined tunes and words that at least can be understood by the young singers. This is important. Get off the beaten track. A handful of pieces seem to go the rounds. If you are thinking of contemporary or near contemporary composers, glance occasionally at the music of Robin Milford, Gordon Jacob, Maurice Jacobson, Armstrong Gibbs, Thomas Wood, Vaughan Williams, Holst, C. le Fleming, Harry Brook—the names of the great and less great jostle each other for mention. There are, too, always the less well-known pieces of Stanford, Charles Wood, Percy Buck, Frank Bridge, John Ireland, and so on. The Arne period offers unexpected and mostly unexplored possibilities.

The classical repertoire needs no commendation. But it does need a warning particularly with regard to the "arrangements." Schubert, Schumann and Brahms have been the happy hunting grounds of what can only be described as the "hasher-up" of both words and music. There are, of course, many excellent arrangements and it is fitting and proper that fine music should be made available to the young. There is nothing in the argument that a change of key vitiates the composer's intentions. One is always safe with arrangements by known and proved authorities, Thomas Armstrong, Arnold Foster, Hubert Foss, Shera, Bairstow and the like. Don't condemn an unfamiliar name hastily, that would be to miss some first-class settings, but exercise caution and, if in doubt, choose again.

(Continued on page 502)

Income Tax

An expert gives clear guidance on what are justifiable tax expenses and details the allowances you may claim. Check these for your own good!

INCOME tax is, perhaps, the most important item in the budget of a private school. Although the Authorities will tell us that income tax arises only when a profit is made and is not, therefore, to be taken into account in assessing the prosperity or otherwise of a business, in the words of the average "quizee," "it all depends what you mean by profit."

If, as a school proprietor, you claim allowance against your gross fees for only a proportion of the expenses incurred in running the school, the burden of income tax will be such as to reduce your net income to infinitesimal proportions—if not actually to turn it into a loss! It is, therefore, of the utmost importance that you should claim allowance for all your expenses. The question then arises, how do you know whether all your expenses are being claimed? and this is where a little professional advice is well worth while. In these days of high taxation and limited profit margins the school proprietor is well advised to seek the aid of a professional accountant to assist him in the preparation of his accounts and the agreement of the profits with the Inland Revenue.

For those who prefer to deal with these matters in their own way, the following are some of the expenses which may be set against profits but which are very often overlooked by the average taxpayer:—

House expenses

Where the school is carried on from a large private house a generous proportion of the rent or Schedule A value, general and water rates, insurance, cleaning, fuel bills, etc., can be set against profits. The proportion to be allowed has to be negotiated with the local Inspector of Taxes, usually on the basis of numbers and sizes of rooms. In addition, where the premises are owned by the proprietor, the agreed proportion of expenditure on repairs and maintenance can be claimed against profits instead of by way of a separate property maintenance claim. In the case of old buildings where the repairs expenditure is heavy, this may be a considerable advantage as the amount to be claimed is not restricted, whereas the maintenance claim is limited to the amount of the Net Schedule A value.

Upkeep of garden

The wages of a gardener and the cost of all plants, seeds, etc., can be claimed for that proportion of the garden used by the school. By concession, this proportion is usually assumed to be the whole garden less any part fenced off as an allotment, the produce from which is for the sole use of the proprietor.

Staff Meals: The cost of providing midday meals for teachers is an allowable expense. Where the teachers partake of the proprietor's table, the Inspector of Taxes will usually agree a round sum based on the number of teachers and the average cost of a meal.

Proprietor's car

If the proprietor uses his car in connection with the school a proportion of the cost can be claimed based, usually, on the mileage for school purposes compared with the mileage for private purposes. Examples of school use would include visiting parents, collection of school books, etc., from the suppliers and running children to the station, hospital or home in case of school holidays, emergency or exceptionally bad weather. When one considers the various uses to which a can can usefully be put, one is forced to the conclusion that it is an essential item of the equipment of every private school. In addition to the running costs which you pay out of your own pocket on a weekly or monthly basis, there is also an allowance to be claimed for wear and tear of the car itself. The allowance is calculated at the

(Continued on page 496)

FOOT INFECTIONS

by

DR. R. E. SMITH

WITH the end of summer many schools are finding an increase in foot troubles. Both warts and athlete's foot are contagious diseases which hot weather and communal activities make widespread In response to readers' requests I am, therefore, dealing now with those troubles.

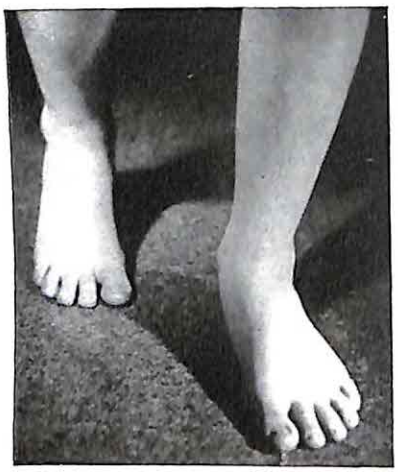
Verruca

This glorified name for "Wart" is defined medically as "Circumscribed new growths of the skin due to hypertrophy of the epidermis and papillæ, provoked by a virus infection." Children and adolescents are most commonly infected and it is the hands rather than the feet that are involved. Therefore, though I am discussing plantar or feet warts, let us not forget that hands are infected more commonly. Warts on the feet are usually more painful than on the hands because a tight or even a good fitting shoe exerts pressure and because, if they are on the sole, one puts one's whole weight on them, especially during walking. They are, however, subdued to some extent by this pressure and are apt to be mistaken for corns. Warts are often more than "skin deep" because the causative agent is often carried deep into the skin and there may multiply and infect other cells. I shall give the evidence later that the causative agent is a virus. If we assume it is, then we can understand why local applications are usually only palliatives. The application of caustics, such as glacial acetic acid, trichloracetic acid, carbolic, copper sulphate, though often applied, only attack the surface. These, applied daily with judicious paring of the skin, are often effective and cause little pain. However, many people prefer X-ray treatment. This again must be given by an expert, and my practice always was to advise this if more simple methods failed, and this happened perhaps in one in 10. There are other methods described in textbooks and let us not forget the passage of time. It is often worth while listening to old wives' tales and it is difficult, if not impossible, to explain the dramatically successful results of suggestion without assuming that spontaneous cure is the rule rather than the exception. Indeed, a study of the natural history of all virus diseases shows that they are usually self-limited infections, with the body throwing off the invader. I use the word "usually" advisedly for there are exceptions.

The virus

A virus is an infectious agent which is small enough to squeeze through a filter which will stop ordinary bacteria. In 1907 Ciuffo demonstrated that warts were produced by a filterable virus, and physicians before him had noticed that verrucæ were infectious. Variot in 1893 reported the successful inoculation of a wart from a child to an adult. The evidence indicates that all warts are caused by the same virus, whether they are verruca filiformis, i.e., the long threadlike variety such as occur on eyelids or neck; or verruca digitata, the one with fingerlike processes arising from a wart as large as a silver threepenny piece; or the plantar wart, usually the flat variety on the sole of the foot. Extracts suitably prepared from any of these varieties if injected into susceptible subjects produce verruca vulgaris. Filtrates from these artificially-produced warts will produce infection in a second generation.

The incubation period is at least four weeks and may indeed be much longer, and cases have been recorded where it varied from 1, 6, 8 and 20 months. Similarly, there is great variation in the time a wart takes to go away spontaneously but it is usually a matter of months. The results of treatment if followed scientifically will show that "the percentage of cures obtained by any treatment or combination of treatments was not higher than 55 per



150 school children were inspected before these unspoilt feet were found. Typical were the feet shown below.

Scientists and Doctors agree that many foot ills are due to unsuitable footwear and especially shoes which are the wrong size or do not fit properly. If not corrected, disorders which seem trifling in the child can become painful or serious handicaps in later life.

Recent surveys in various parts of the country showed that, by the age of 15:

- 4 children out of 5 have big toes bent over, and even more have other toes crooked.
- 2 out of 5 have corns on the little toes.
- 1 girl in 5 has blisters on her feet.
- 3 out of 10 have stiffness of one or more joints, mainly toes.

Children's feet normally grow a full size in 6-12 months. Also the rate of growth is not steady, and periods of very rapid growth often occur. These are danger times when shoes are most likely to become too short. Shoes will often become shorter after being repaired, so check for fit then.

School indoor shoes and plimsolls don't get very hard wear and often become too small before they need repair or are worn out. So check for length once or twice a term.

Finally let children go barefoot on sand, grass or anywhere it is safe.

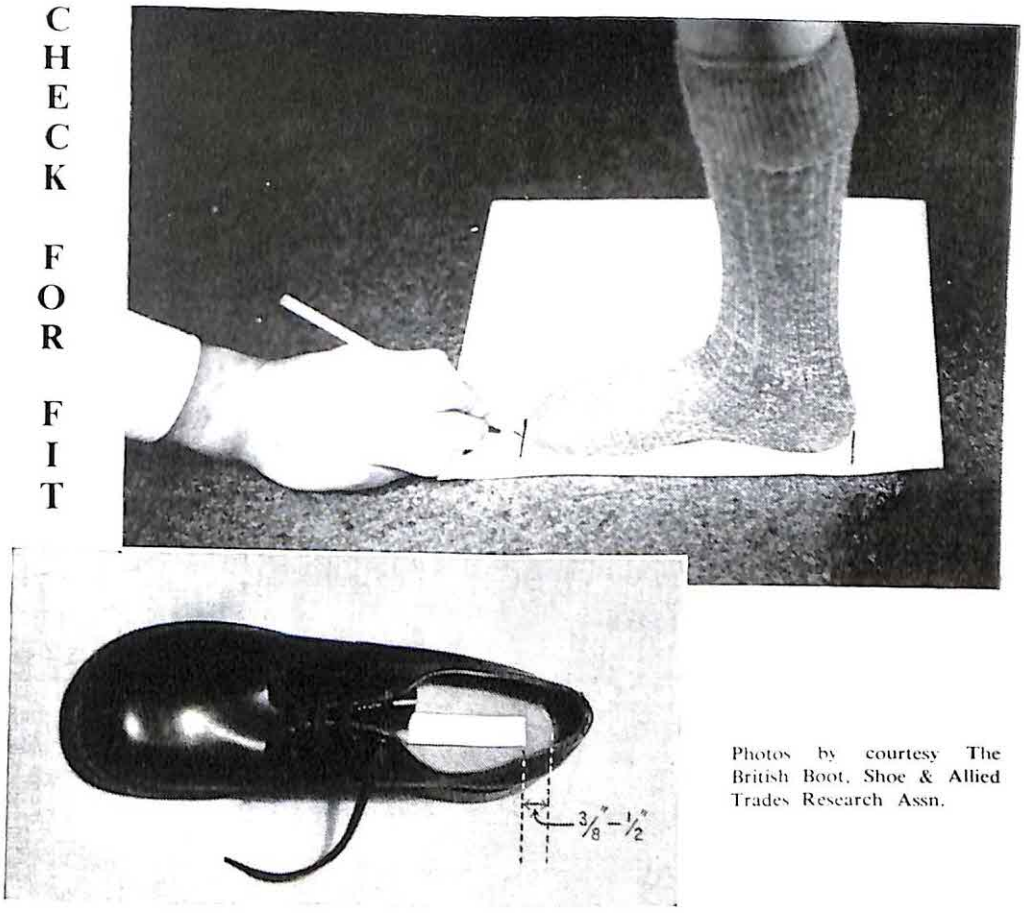
cent. The percentages obtained by electro-desiccation and radiation therapy were about the same."

This is the conclusion of Dr. R. H. Rulison in a paper called "Warts. The statistical study of 921 cases," in the *Archives of Dermatology and Syphilology*, 1939, Vol. 39, 1040. The name of the paper is out of date and indicates the bad old days when people preferred to say that they attended a dermatologist for another complaint which often gave rise to skin diseases.

What we really want to know is the way warts spread. The first important point is that the spreader is human and anyone with a true wart should be considered infectious. I use the phrase "true wart" to exclude callosities such as one gets from a badly fitting shoe, etc. During treatment the child must be excluded from communal baths, etc., and special arrangements made for washing himself or herself. If there is an epidemic, then foot inspection is advisable and those who knowingly or unknowingly are sufferers should be treated as possible sources of infection. Cleanliness is next to Godliness but if a boy with a verruca runs from a bathing shed to dive into the swimming bath or plays football and walks over the bathroom floor, no amount of antiseptic is going to remove the possible source of virus. It is probable that the best antiseptics are sunlight, fresh air and a modicum of soap and water. If communal baths are a source of infection, how much more must the borrowed towel or shoes be a source?

It seems curious that though we have known for so long that warts are infectious that no one has studied their natural history exhaustively. We know, as recorded above,

CHECK FOR FIT



Photos by courtesy The British Boot, Shoe & Allied Trades Research Assn.

Children's shoes should be checked for length and fit every 2 months and always before they are repaired. Stand the child barefoot on a piece of cardboard, with a pencil put one mark at the end of the longer toe and another at the back of the heel. Cut out a strip of the cardboard about ½ inch wide between the two marks. Insert the strip in the inside of the shoe and when one end of it is pushed up to the toe the other end should be ⅜ inch to ½ inch short of the back of the shoe.

that they may take months to evolve; we know that their life history is limited and this may vary widely; we know that they are infectious. We do not know if everybody is susceptible, although this seems probable. If so, there are many who probably have unrecognised warts. It is a disease of childhood in the usually accepted meaning of the term. One attack of a wart or warts probably confers immunity. Only in this way can we explain why children are more susceptible than adults.

I have dealt with this subject rather exhaustively because it is always wise to know what we know and also what we don't, and because with the growing and healthy habit of every small town wanting a swimming bath we shall be sure to hear more about verrucæ. Perhaps a vaccine will be found.

Tinea

Foot rot, athletes' foot or tinea pedis has much in common with verruca. However, the important difference is that it does not seem self-limited. Rather, the parasite seems to take up permanent residence. The longer the tenancy the greater the difficulty to eject. Yet it it is worth while making a valiant attempt to remove tinea pedis. By so doing, one will certainly remove tinea cruris, once a scourge in some schools. Much depends on the keenness of the school itself to rid itself of a disease like athletes' foot. A School Medical Officer can inspect regularly, can order treatment, and can impose restrictions on defaulters, and no sanction is so effective as exclusion from the swimming bath in the welter of summer. But the school doctor must have the power to exclude all defaulters includ-

(Continued on page 494)

the care of boots and shoes

THE life and comfort of footwear can be increased enormously by regular care and attention, but it is during the winter months that the most care should be observed.

Almost all leather soles are made of vegetable-tanned leather which is particularly sensitive to heat. Heat generates water vapour or steam within the substance of the leather and this steam attacks the leather fibres, entirely destroying their character. The leather is thus turned into a soft tarry mass which becomes hard and brittle on cooling. The damage is not always visible on the surface even when the inner substance of the leather has been badly burnt. This rather curious effect arises in the following way: The application of heat dries the outside of the leather quite rapidly because the vapour gets away quickly from the surface, but the steam which is generated inside the leather cannot escape so quickly and has time to cause internal damage by attacking the fibres of the leather. In subsequent wear, when the outer surface of the leather is worn away, the affected part is soon exposed and rapidly disintegrates. Where the burning is less severe the damage may not be apparent to the naked eye but can be seen with the aid of a microscope.

It is a common practice for children to prop their shoes up in front of open fires, or put them on radiators or hot pipes. They should be taught what will happen to the structure of the leather by doing this and steps should be taken to guard against it. The damage done may not be obvious but you can be sure the life of the footwear will be seriously affected. Wet shoes are, of course, most easily damaged, but shoes worn under normal dry conditions also contain enough moisture to suffer by this maltreatment. Heating should, therefore, be avoided whether the shoes are wet or dry.

Damp soles should be allowed to dry out slowly in a well-ventilated place which is not warmer than a normal living room. It is important that an airy and well-ventilated place should be used. A safe way to assist the drying out of very wet shoes is to take up the excess moisture by stuffing them with dry newspapers for a few hours, or overnight.

Crêpe-soled footwear will also suffer from over-heating. They will become soft and sticky, and it is likely that the soles will spread or "balloon" in an unsightly manner causing the shoes to lose their shape. Softening in this way may also result in the soles being kicked away at the toes, and in the stitching pulling through so that the soles come adrift. A slight stickiness of crêpe rubber, for example, at the edge of soles, can be reduced by dusting with flowers of sulphur or with a powder such as French chalk or talc.

New or newly-repaired shoes should never be worn straight away in the wet; doing so can cause serious harm and even the best of sole leathers will acquire a soft, cheesy condition in which it is liable to wear away quickly. Wear them first in dry conditions; this will give them a chance of becoming accustomed to the flexing of the foot; to permit their sewing seams to get set and to allow the soles to pick up that fine grit which embeds itself in the surface and "armour plates" the leather.

The result of recent investigations has established beyond doubt that the ingredients of foot perspiration are harmful to leather. Some of the ingredients of organic hydroxylated acids are especially harmful. They attack the leather, causing it to

(*Continued on page 504*)

for correct growth shoes should be

. . . *right toe shape*
. . . *long enough*
. . . *wide enough*
. . . *snug at heel*
. . . *snug at instep*

Compost and Health

The importance of foods grown in organic matter is stressed by

W. E. SHEWELL-COOPER, M.B.E.

THERE is no doubt that more and more schools are taking an interest in composting vegetable refuse. Not only because farmyard manure is expensive and more difficult to obtain, but for reasons of health. In talking to parents I have often said that the reports of the Cheshire Doctors' Panel Committee, the lectures of Sir Robert McCarrison, the experiments of Dr. Chapman and the work of Dr. Scharff and many others may not represent conclusive evidence that health is bound up with soil fertility, but that undoubtedly they show a definite pointer.

What parent would deliberately go against the evidence there is, and definitely prefer to feed his child on vegetables grown on land treated with chemical fertilisers against those grown on compost-fed soil? It is, as has been said, a circulation of protein in nature that creates disease resistance and fertility in humus is the first step in bringing this about. Dr. G. B. Chapman's experiments at the Mount Albert Grammar School were reported in *Nature*, and he showed that boys and girls fed on vegetables grown in soil properly manured with compost had a marked physical growth and development. Further, bilious attacks and constipation were rare, skins became clear and healthy, there was a decline in catarrhal conditions and a marked decline in colds and influenza. Dr. R. V. Harris, a scientist of the East Malling Research Station, in writing of the virus diseases which have decimated raspberries and strawberries, points out that where he has seen fine strawberry plantations free from all traces of virus, that in every case the soil has been built up to a high state of fertility with organic manure.

If someone is properly healthy in body they are far more likely to be able to resist attacks of disease and there is no doubt that there is a very definite correlation between the food the child eats and health.

The argument, of course, is to see that the soil is right and then the plant will be right—and if the plant is right, then the human being will have every chance of being right also. It is impossible to separate human health from the health of the vegetable or animal to be used as food. Thus it is terribly important to have "live" soil, and this means that there must be plenty of humus present, for one might almost use the equation: "Life in the soil = humus."

If humus in the soil is, therefore, so important, one must see that plenty of organic matter is added to the ground every year, and naturally schools want to know the best way of setting about this work. First of all it's undoubtedly important to have a compost heap and if a school is sensible it will have, say, four heaps so that there's always one being filled up and prepared while the others are rotting down or are ready to be used. Some people have dug out large pits in which to put the vegetable material, but this entails a great deal of work not only at the time, but also when the compost has to be dug out and loaded on to the barrow for carting on to soil. It makes for ease of working if the heaps, therefore, are at or above soil level. At the Horticultural Training College we have made bins of wire-netting; they are roughly 10 ft. wide and 10 ft. deep and absolutely square. The front of the bin is, of course, quite open, so that the vegetable matter can be carted in without any difficulty, and carted out, too, later for that matter.

The bins should be side by side so that the right-hand wire netting wall of one bin is the left-hand wall of the other. This saves material. Instructions are given that every bit of organic matter that is capable

of being rotted down should go on to the heap. It doesn't matter whether it's the tea-leaves, orange-peel and fishes' heads from the house or the tops of the peas and beans, the leaves from the trees and the bashed-up tops from the Brussels sprouts from the garden. It is surprising what can be collected. No heap, however, should be made without some sort of activator being used layer by layer. There are a number of proprietary products available, and these should be used in accordance with the instructions given on the packet. We prefer, however, to apply a fish fertiliser with a 5 per cent potash content.

Such a fertiliser must be applied at about 2 to 3 ounces to the square yard for every 6 or 7 inch thickness of material collected. It is convenient if the fish fertiliser is kept near the bins in a large dustbin on to which can be placed a tight-fitting lid. By this means one can almost ensure that any gardener or boy, or even member of the kitchen staff, who takes out material to put on the heap will take the trouble to put his hand in the bin and apply the amount of activator needed. If everybody does this then there's no trouble.

Sometimes, of course, the material is very dry and the weather droughty, and thus the vegetable matter does not rot down as it should. This means that it's necessary to use water; a sprinkler is the answer, and if this is put into position and the hose attached to the tap, the water can be applied automatically for the desired length of time. To give an example, a ton of dry straw, we find, needs about 800 gallons of water to wet it properly. Soft material like lawn mowings need no added moisture at all.

Those who have available manure of any kind can use this instead of the fish fertiliser. For instance, rabbit droppings are excellent and can be put on to the heap when the rabbit-hutches are cleaned out, say, once a week. One can say the same of poultry manure or pigeon manure; the dung from pigs is first class, and a far better type of manure is produced when it is put on to the compost heap and so activates a much larger weight of vegetable refuse. At the Horticultural Training College we always buy in tons of straw and at the same time try to purchase manure from a goat farm nearby. The straw is put down in layers about 2 ft. thick. On top of this is placed a 6 in. layer of the goat manure, then there's another layer of straw, another layer of manure, and so the heap rises. Eventually, when the heap has got to a height of 10 ft. or so, a thorough watering is given and then a 4-inch layer of soil is put on the top. Such heaps produce excellent compost. Occasionally we can buy in a little horse manure or cow dung and this is always composted with straw or the vegetable waste.

The schools which live near the sea will, of course, obtain all the seaweed they can. It's an ideal organic manure and composts well with other material. If it has a fault it is that it's slightly deficient in phosphates, but this can always be made up by the addition of the fish manure or the use of bone meal at 3 to 4 ounces per square yard for every 8-inch thickness of seaweed collected. Some may be able to get sewage sludge, but the value of this product lies in the organic matter it contains for improving the physical condition of soil rather than in its content of plant foods. It is better, therefore, to compost it first with vegetable waste than to use it as it comes from the sewage farm.

Continuing FOOT INFECTIONS

ing masters and their families who are infected.

Warts seem to be a greater problem in girls' than in boys' schools. Tinea cruris and pedis certainly attacks the adult male whereas girls and prepubertal boys seem to escape because of the absence of certain male glandular excretions. Focus is directed on public schools and they get a bad name compared with girls' but it is not because boys' schools are dirtier but because boys and not girls are susceptible.

Personal cleanliness is the keynote for success.

Don't miss the

BUILDING TRADES EXHIBITION

at Olympia from Nov. 18 (not Nov. 12 as stated in our last issue) to Dec. 2.

These

COLD WEATHER PUDDINGS

will get a

WARM WELCOME

KITCHENS big and small now have an opulent harvest festival atmosphere as the late fruits of fields and gardens are gathered and sorted, stored or used as necessity or quality decree.

The great ovens and steamers in the kitchens of schools and colleges are busy again and savoury odours penetrate beyond the confines of the culinary departments.

Every county in England has some especial local "dish" which is the treasured speciality of the district. More than one county claims to be the original makers of this particular *lemon pudding*. It is a delicious sweet and not nearly well enough known in many districts. Line a (or series of) pudding basins with suet crust pastry and into the centre of each basin place a lemon which has been wiped, cut into two, width way, and had as many pips removed as possible (1 lemon equals 1½ pt. pasin). Cover the lemon with ¾ lb. brown sugar and close the basin with a suet pastry lid securely tucked over the edge of the basin. In 2½ hours of (ordinary) steaming the sugar will have become a delicious lemon-flavoured syrup which can be ladled over the melting delight of the cooked suet pastry. This steamed pudding does not need a sauce, the lemon and sugar having formed an amazing quantity of syrup.

Ginger pudding is much improved if a proportion of dried fruit, currants and raisins, dried figs or dates (cut up) or a quantity of ginger-marrow or candied ginger is added to the mixture. Mix the *powdered* ginger in a little milk before adding to the pudding mixture. Stir the pudding vigorously before pouring into the various well-greased containers, allowing space for pudding to expand. If the containers are not fitted with lids, tie well-floured cloths over the top after covering the surfaces of all the basins with grease-proof paper and steam for 2-3 hours.

Treacle or syrup pudding is the label attached to several types of this sweet. Some cooks mix a plain cake-mixture which is steamed and turned out and then has a cup of hot melted syrup or treacle poured over it as the dish disappears dining roomwards. A white sauce accompanies this sweet.

Other cooks mix the ingredients of the pudding with melted syrup, adding also warm milk if necessary. As there is no dried fruit in this pudding, the mixture can be fairly thin in texture. A good white sauce can be served with both types of this treacle pudding. In addition, whether jam or syrup is used, to "cap" this type of sweet a thin jam or melted honey or syrup sauce adds pleasure to the eating of it.

Steamed or baked apple pudding is always enjoyable. Made with layers of sliced apple and brown sugar, filling the pastry-lined dish, it needs the introduction of a little sweetened water before the pastry lid is securely fixed in position. Melted honey can be substituted for sugar between the layers of fruit, and a milk sauce can accompany the pudding to table. If the containers are of the sandwich-roll type, the apple roly-poly should not more than half fill the tins. Many of the complaints made of the stodginess of cakes or pastry cooked in these sandwich-roll containers are warranted but only because so often too little allowance has been made for the increase in size of the cake, etc., whilst cooking.

"Spotted Dick" (where did that name originate?) is a firm favourite with many households. A homely relation to the plum pudding, it need not necessarily look the anæmic poor relation it often appears to

(Continued on page 510)

INCOME TAX

continued

rate of 25 per cent of the diminishing value of the car from the date of purchase and on the price paid with, in addition, an initial allowance in the year of purchase of 20 per cent of the cost. This latter allowance is of real value as it reduces the income tax payable in the year immediately following that in which you have had the capital outlay. If the car is bought by the hire purchase system, the interest charged can be claimed on the same basis as other car expenses.

Teachers' board and lodging

In order to attract the necessary staff, it frequently happens these days that the proprietor has to find accommodation in the neighbourhood for his teachers, either at his own residence or at a suitable establishment. The cost of providing this accommodation is allowable in full against the school profits. In addition, if the proprietor makes it a condition of employment that his teachers should live in the accommodation which he provides, they will not be assessed to tax on the saving to them of their normal cost of board and lodging provided they do not receive the rent and the proprietor pays it direct to the landlord. This is of very real value to teaching staffs in view of their comparatively low rates of remuneration, and the inducement afforded will increase the numbers of applicants for a vacant post and thus enable the proprietor to select his staff from a wider field. The benefit here is not, therefore, solely one of saving income tax.

Husband and wife as joint proprietors

This is a subject on which the help of a professional adviser is urgently called for. If husband and wife are both qualified teachers, should the husband be the sole proprietor and pay his wife a salary for her services, or should they deal with the school as a partnership and share the profits equally? A vast number of points have to be considered in arriving at the right answer to this problem.

If the school profits are large and at a fairly constant level, a partnership may be the best answer. However, if the husband has a private income and the school profits are small, there is considerable advantage to be gained by treating the wife as an ordinary member of the staff and paying her on her correct salary scale. If this latter procedure should involve the husband in a loss on the school accounts, he can obtain relief for the loss against his other income.

Between the two extremes set out above there are a multitude of different situations which require to be considered before a decision is reached. It must be borne in mind that whichever method is adopted must be adhered to, so that one has to consider, not only the present, but the future, prospects of the school.

Renewal and replacement of school equipment

How should one obtain the maximum benefit from the various methods allowed by the Inland Revenue? Two principal methods of dealing with depreciation are allowed, one known as the capital allowances method and the other as the replacements method.

Capital allowances

This method can be applied to all "hard" furniture and equipment, e.g., desks, tables, cupboards, large kitchen equipment (stoves, refrigerators, etc.), garden mowers and, of course, the proprietor's car! The only snag is, however, that you must know when the equipment was bought and the price paid. This may sound easy, but many people introduce into their schools pieces of furniture which they have had for years in their own homes and these can be very difficult to deal with. The method of allowance is very similar to that set out above for the proprietor's car except that, as furniture does not generally wear out as quickly as cars, the allowance is at a lower rate per annum. Repairs to the items dealt with under this method are still allowed in full in the annual accounts, but renewals must be added to the capital stock on which the allowance is being calculated.

"Soft" furnishings (curtains, carpets, chair covers, etc.) cannot be dealt with by this method and must in all cases be dealt with on the basis of renewals. Under this scheme the capital cost of your school equipment does not matter. All expenditure incurred in renewing and replacing items which have finished their useful life will

(*Continued on page 506*)

THE BURSAR discusses

BREAKAGES

FOR those who do not see "Readers' Digest" I must repeat this account by Virda Drumb in "To-day's Woman."

"Breakage used to be terrific in my husband's restaurant. Nothing he said to the dishwashers seemed to have any effect, and every month, besides having to replace china and glassware, he had the bother of firing the dishwashers and hiring and training new ones.

"Then my husband hit on the idea of putting enough money into a fund to cover the cost of an average month's breakage. He told the dishwashers that at the end of the month, after paying for whatever breakage had occurred, he would split the remainder of the money with them.

"There's a new fund each month, and now the dishwashers handle the china and glassware as if each piece were a new-born babe —and my husband hasn't had to change dishwashers in months."

We are passing through one of those bad patches when our crockery breakages are far too high and the domestic bursar wears a worried look every time she goes near the pantry. I am now asked to do something about it "from the top." Can we learn anything from our American friend?

A staff "kitty"?

There wouldn't appear to be any saving in terms of money, only a cutting out of this business of sacking and hiring dishwashers. I imagine schools are not quite so ruthless, putting up with such failings for some time before taking drastic action. No doubt we lecture and threaten a bit or hope to bring about a sense of shame by making the pantry-maid chalk up each breakage on a blackboard. Whatever we seem to do, this problem is always present, and yet there must be a solution.

Supposing we took the present rather high average breakage for a month and put such a sum into a "kitty." The regular washers-up would have to report breakages, and there might be a temptation not to do so, or one would take a pantry crockery and glass stock and compare the end of the month with the opening stock. This does rather bristle with problems because so often in schools a number of different workers give a hand with washing up and even the pupils may help, therefore it might be difficult to say who are the regulars to share the plunder.

Again, breakages do not only occur in the pantry for there's many a crash I've heard in the dining hall, and so your dining hall maids would have a claim. Relying upon stocktaking for your figure has obvious weaknesses, for crockery is often borrowed from the pantry, used for children's meals in bed, used in the kitchen, and so on and so on. The result wouldn't really be fair and be weighted too heavily on the side of the management.

To get at our monthly losses it seems we must rely upon the reporting of breakages but it is a rather hit-and-miss method. Perhaps to combine the two would work, the stock figure being a rough check against all breakages being reported. How can we save money? The present monthly average is high and if this sum goes into a pool we are no better off. If we fix a new average after each month based upon the results of this "care incentive" the workers will lose heart thinking that ultimately they will be breaking nothing and earning nothing! We must run this plan by fixing a reasonable sum, what we consider fair wear and tear, for a month, and anything they can save on that shall be theirs and we shall know exactly what to budget.

You may ask how to deal with children's breakages and I will enlarge upon this for a moment as we have recently changed our system with some success. In the past a sum of, say, 5s. has been added to the extras bill under the heading "breakage." A boarder has paid a shilling more than a day child. The school elects its own breakage officer and during the term he keeps account. Pupils are asked to report their own accidents and they are classified as accident, careless, wilful, and priced

accordingly after consulting the bursar. Anything going unreported is put down under general breakages and works out at a copper or two against every child. At the end of each term the accounts were made up and if less than five shillings worth had been broken the balance was paid over to the pupil. A drawback was getting the accounts out in practice, for mostly it was the following term before this was done and by then children had forgotten the details and merely regarded the shilling or two as a bit of extra pocket-money and nothing more.

Even so I would say from my point of view the system was a sound one and more care seemed to be taken of school fabric. In fact, I cannot complain about damage done although I never fail to! However, as our job is one of education we are getting much more out of the system now by bringing "paying up" much closer to "paying out." Each week we add sixpence to pocket-money—one and six would be pocket-money for some and sixpence breakage money makes up their two shillings per week, and this division is constantly emphasised. A forbidden ball goes smartly through a window and straightway the breakage officer assesses the cost of the damage and payment starts that week until the set amount is recovered. Breakage money really means something now when with care and consideration the weekly sixpence can be converted into extra pocket-money.

It is interesting to note the reaction of the school at meal times when there is a crash behind the scenes. "That's where our money goes," they say, and are justly indignant as much as to say: "When we break things we have to pay." Mistaken but quite a sound outlook from my standpoint and I would like to foster something like it among our maids!

Are working conditions right?

There are, of course, ways in which management can help, especially before reading riot acts, such as making sure conditions are as good as they can be. We have a deep wooden sink (teak) with hardwood draining boards for cutlery and a hand washing-up machine in the same excellent material. Are you sure these are not set too low for comfortable working? What type of floor have you got and does it prove slippery when wet, to say nothing of striking cold up the legs? How about the stacking shelves? Are they accessible and deep enough to carry plates safely, and at no great distance from the sinks? Is your crockery chosen with edges to assist firm stacking, and do you avoid crockery pieces which will damage easily because of shape or quality, putting up with a design which may be ordinary but essentially serviceable? Your beakers or glasses—have they a base of useful diameter both to stand securely and put up with going smartly one with the other without bursting asunder?

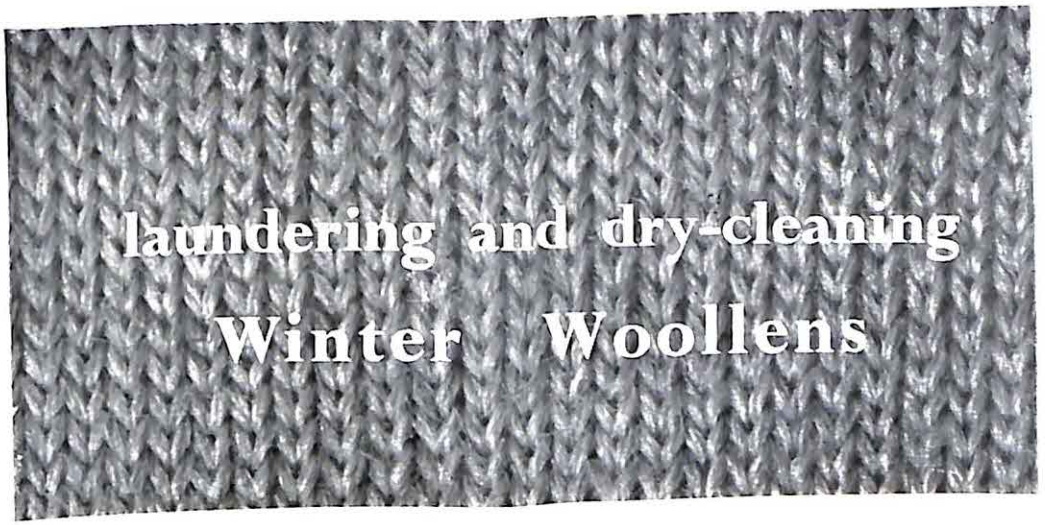
Dishwashing machines

A word about dish-washing machines as we are replacing ours shortly after twenty years and more of hard service. My own opinion is that for under 500 there is nothing better that the hand washing machine. The first of three compartments has two revolving bristle brushes and the dirty plate slips between these and is held in this position by a rubber roller set at right angles. The water is steam injected and so kept very hot. Nothing can possibly cling to the plate after a moment of such brushing and cleansing—I was going to add "mustard and lipstick" are dealt with easily! Lifted out of this tank on to racks to hold a dozen plates, another girl lowers the complete rack in the third portion which contains clear boiling water, then out on to the draining board and they are dry in half a minute. The centre compartment deals with cups and glasses thrust down over revolving brushes, racked and dipped and dried as for plates.

The advantage as I see it when considering breakages is cutting out the need for any further handling after passing through the machine. With the pressure jet system plates seem always to have to be checked over by hand after going through the chamber, and washed and wiped when some food has not been removed entirely. This is double handling and increases the chance of breakage.

I don't wish to run down the alternative system because for large numbers it is essential, and I have used different types successfully in the R.A.F., but for the numbers I deal with now the brush system is foolproof.

And so back to our problem. A good machine, carefully arranged pantry, the practical style in crockery, safety and comfort under foot, and some form of incentive bonus, surely such a combination should bring results. I am aware my own conditions do not come up to specification: "Something from the top," said the domestic bursar, and the bursar bought it!



laundering and dry-cleaning Winter Woollens

NOWADAYS scientists have gone far towards making wool virtually unshrinkable. But whatever degree of shrink-resist they give to it, careful laundering is still essential to prolong the fibre's life.

Shrinkage of untreated wool when washed can result from two causes; *relaxation* and *felting*. Relaxation may arise as the result of a garment or cloth becoming stretched in any way while moist during manufacture and being allowed to dry when in this extended condition. It will retain the stretch until it is wetted again, when it will return to its original size. To escape this type of shrinkage the user must clearly avoid getting the fabric wet. In these circumstances it is obvious that the ideal cleansing technique is dry cleaning with solvents, care being taken to avoid the aqueous soap additions which are sometimes made to the solvents used. Washing, however, is desirable for such items as socks and underwear, where soiling must be removed by laundering.

Common shrinkage

Felting—the matting together of the fibres—is due primarily to the fibre's surface structure. Like all animal fibres (and human hair) the wool fibre consists of an outer covering of overlapping scales—rather like fish scales. Within this is the cortex or "body" of the fibre which is made up of long, spindle-shaped cells. This scaly covering greatly influences the fibre's general behaviour. Moreover, it is the toughest part of the structure chemically and partly determines the fibre's action towards washing and chemical agencies.

Pointing in one direction, the fibre is smoother when rubbed with the scales (in the direction of the tip) than when rubbed against them (in the direction of the root). This peculiar property of the fibre is called "differential friction." Owing to this property, when the fibre is rubbed up and down—as in laundering—it moves mainly in one direction only—towards the root. In the presence of moisture the fibres "creep" when rubbed and compressed, thus producing entanglement and shrinkage of the yarns. Thus the material becomes felted—the most common type of shrinkage.

Washing rules

Scientists can now counter this felting tendency to a great extent. They have evolved various techniques which minimise the "differential friction" by modifying the fibre's surface. It is unlikely, however, that the school launderer can yet rely on all the garments they handle being shrink-resistant, so it will be wise to bear in mind the following rules which apply to the washing of all types of woollen garments.

Examine all garments for stains and remove them before washing. Rips and torn places should be repaired before washing to prevent enlargement of the holes. Hard rinsing or any form of physical ill-treatment must be avoided to prevent felting.

Do not soak wool for any longer than it takes the fabric to become saturated with the suds. Soaking weakens the fibres. Water for both washing and rinsing should be lukewarm, around 90 to 100 degrees

Farenheit, never more. The water should feel cool to the hand.

Use plenty of neutral soap in the water before the garment is put in. Strong caustic soaps harden the wool fibre. Keep a heavy suds in the wash water, adding more of the dissolved soap if necessary. Two or more times the usual amount of soap may be necessary to get wool garments clean. Soap in combination with hard water forms a curd which remains in the garment unless there are plenty of suds to wash it out. Use a second heavy suds if it is necessary to remove all the soil.

Where it is at all practicable, suds should be squeezed gently through a wool garment by hand because pounding and rubbing will cause the wool fibres to entangle and mat and injure the fabric. Work under water so that the weight of water in the garment will not distort it. If it is necessary to use a washing machine the material should not be crowded nor should it be agitated violently or for long periods.

Rinse thoroughly in several waters to remove all soap. Soap left in the wool tends to coarsen and discolour it. Squeezing water out of a wool garment by hand is the best method, but when a wringer is necessary for the heavier pieces, set it loosely so that the fabric will not mat. Never hang wool garments near heated radiators or in the hot sun because heat dries out the wool fibre, causing it to become brittle and break.

Press lightly

Wool may be pressed on the right side, since the iron does not come into contact with the fabric. Garments such as trousers, coats and jackets cannot be pressed in any other way. When using a steam iron no pressing cloth is needed if the garment can be pressed on the wrong side, but a cloth should be used when pressing on the right side in order to prevent shine. Begin at the top of the garment and work down, first pressing the sleeves and other parts that fall off the board.

Have a light touch with the iron. Do not hold it on one place until the material dries. Pressing dry makes the fabric shine. A strip of heavy paper or cardboard can be placed under seams, pocket flaps, hems or between folds of pleats to prevent edge marks from showing on the right side of the garment. In pressing hems, place a piece of garment material at the top of the hem to equalise the thickness. This will prevent a line showing after pressing.

How Muc

About three pints a day says Pr

others put the figure higher. So

make good drinking water availabl

THE average person—be he child or adult—left to his own devices, drinks enough. In a recent article in *The Lancet* Professor McCance says that we most of us drink more than is necessary. But most people aren't left to themselves. They are told what is "good for them"; that they must drink only at meals; or that they mustn't drink at meals; that anything but water is a sin; that health is to be found in drinking mineral waters or fruit juices, or glucose drinks or "gin-and-it." And it is quite easy to get into habits of drinking, both harmless and not so harmless, which may upset the body when put into an unusual environment.

Water is essential to the body. Probably all the changes, the chemical changes, that is, which results in the contraction of a muscle, the secretion of a gland, or the production of warmth, takes place in the water in the body. Water permeates every cell in the body. In fact the major portion of our bodies consists of water. It is a serious thought that 60 per cent, or more, of Mr. Aneurin Bevan or of Sir Winston Churchill is water.

Desiccation

This water is continually being lost, in the breath, in perspiration and in the excreta. It must be replaced by drinking beverages containing very large amounts of water, or the metabolic changes which underlie life come to a stop with the result that life stops too. Whereas a man can live over fifty days without solid food, four days is the utmost he can live without water. Uncompensated loss of water from the body results very quickly in collapse and death. One of the things a doctor has particularly to guard against in his patients is dehydration, i.e., loss of water from the tissues

h Should a Child Drink?

ofessor V. H. Mottram, *but*

do not stint drink at meals and

e at any time of the day.

which cannot be made good. Vomiting and diarrhœa produce such dehydration and often the water lost has to be replaced by injecting Ringer's solution (a weak solution of common salt, calcium and potassium chlorides and sodium bicarbonate)) straight into the veins. Even a mild desiccation upsets a person. If one has to carry out strenuous muscular exercise for some hours without the possibility of a drink, one soon begins to feel as if one were out of training and this feeling may last for a day or even more until the water lost from the tissues has been restored. Generally speaking, this replacement is quite automatic. After a day's excursion to town when, it is likely, one's habits of taking fluid have been interfered with, one notices next day that the desire to drink has much increased. (This is nothing to do with thirst the morning after the night before! This is a desiccation due to the diuretic effect of alcohol.)

Mechanics of thirst

Until quite recently it has been held that the mechanism which leads you to drink when you have become a bit desiccated is simply that the salivary glands are extremely sensitive to a change in the water content of the blood. When the blood loses even a little water the salivary glands stop working and the mouth and throat become dry. *The Lancet* in a recent editorial, however, points out that this cannot be the whole story, for there are sundry pathological states of the body in which thirst is a marked symptom though there is no marked desiccation of the tissues or the blood. None the less, we may take it that for the normal person there is a self-regulating mechanism which determines how much he should drink. So long as thirst is assuaged all is usually well.

It does not absolutely follow that this will be so as the ensuing observation will show. A person who had got into the habit of drinking at the close of a meal only, migrated to Canada in the autumn. During the winter he discovered that his weight was falling markedly, and began to wonder if he was developing tuberculosis, but noticing that drinking water apparatus was everywhere to be seen—in railway trains, in banks, in department stores and in university buildings—and that Canadians made use of it, "right along" he decided to follow their example. The lost weight was rapidly regained. In that unbelievably dry atmosphere of the Canadian winter he had been unconsciously desiccating himself.

Nor is this an isolated example only. Observations by competent physiologists in the deserts of Colorado, where it is terribly hot and dry, show that a man may dehydrate himself unconsciously and that in order to maintain the fluids of the body constant in amount it is essential to make oneself drink more than habit or desire seems to dictate.

Fortunately, we in Great Britain hardly, if ever, have to consider such conditions, but can trust to the body's looking after its needs for fluid, though it does seem necessary to point out the possible undesirability of forming habits in drinking. The best and only habit to have is to have no habit. If one drinks too little the thirst mechanism will indicate this. If one drinks too much, the kidneys rapidly get rid of the surplus. The mechanism for adjusting kidney secretion is one of the subtlest in the body but it would take too long to describe it now. Besides, it is time to cut the cackle and get to the practical outcome of all this talk.

How much water per day? A pretty theoretical calculation can be made. So much water is lost in the breath, so much in the perspiration, and so much via the kidneys and large intestine. Add these figures up. This gives a measure of what the body needs in the way of fluid to drink. But wait a minute. Food isn't dry. A cooked cabbage may be 95 per cent water, cooked meat 60 per cent, and even cheese 25 per cent. Moreover, when one oxidises

sugar or fat in the body, water is formed. When allowance is made for water in the food eaten and produced in metabolism we get a figure of somewhere about three pints per day. Others raise the figure to two quarts, and people who have a complex about food and drinks—in other words, cranks—put the figure much higher. Boys and girls need proportionately—no, not proportionately, for their surface area and their energy output don't bear direct relation to their age—let us say "less," though even this is untrue for adolescents.

Clearly, the only thing to do *is to allow no stint of drinks at meals, and make good drinking water available at any time in the day.* The body will look after itself if there are no habits imposed on it by interfering adults.

Water is the best of drinks. But public opinion goes on with the song: "And fit for any king, But who am I that I should have the best of anything?" And convention offers in its place, milk, tea, coffee, cocoa and the alcoholic drinks, beer, wine and spirits. We may rule out the last group in feeding school children though beer was the regular drink in Christ's Hospital in Charles Lamb's time.

Oddly enough, each of these conventional drinks is a diuretic. In fact, strong coffee is such a diuretic that it may actually make you thirstier instead of quenching your thirst. (So, too, do the alcoholic drinks and, of all odd things, water taken on an empty stomach makes you thirstier.)

Most people do not think of milk as a diuretic despite the statement to that effect in editions of Sir Robert Hutchinson's "Food and the Principles of Dietetics from 1900 onwards." But anyone can verify that, particularly elderly people.

Now I am in favour of growing children having plenty of milk and would supply is pretty well *ad lib.* at breakfast instead of the conventional tea or coffee. Anyhow, it is no more diuretic than those drinks. Milk will give rise to no more embarrassing situations in a school than tea or coffee. But there is one thing to remember. In preparatory schools enuresis nocturna is often a nuisance. It is quite unnecessary to get the wind up about it for it very rarely continues into adult life, but it is a nuisance to the staff and an embarrassment to the sufferer from it. One knows that it has some relation to the psychological state or make-up of the sufferer. (A headmaster of a prep. school told me that the symptoms increased the nights after showing an exciting film.) But it involves a natural physiological function, the secretion of fluid by the kidney. Is it not better, then, to avoid prep. schools children's taking milk or milk drinks (dried milk products have much the same effect) late in the evening? I think that I should be chary of giving milk or cocoa with the supper snack before sending prep. school children to bed—otherwise let them drink as and when they are "so dispoged."

Continuing A NEW APPROACH TO MUSIC

In the early stages, part singing is best introduced by rounds and catches. And if a two-part song is chosen, again be venturesome. Handel's *O lively Peace* has had a good innings. The range of part songs available is just as wide as that of the unison song.

The theory that the adolescent, particularly the adolescent boy, has no place in the choir is by now pretty well exploded. There is a period when there is difficulty in controlling the vocal mechanism. Then the voice must not be forced or permanent damage may result. The process of change is neither consistent nor gradual; it varies with boys almost from day to day. On some days it may approximate to alto, on others, tenor or even bass. It does not remain long at any one pitch and never hesitate to allow a boy to change, as occasion demands, from one part to another, always, of course, insisting on soft singing. Only as a last resort, at his own request, retire him, and then, if possible, only temporarily, from the choir.

But perhaps the wisest piece of advice about dealing with the young chorister came from the late Sir Percy Buck who made a particular point of warning teachers and choir trainers about the perils of useless dull repetition. Only so much and no more can be achieved at a practice and to hammer away at one piece too long can produce boredom, from which is an easy step to indifference. The stimulus of variety should never be forgotten. Even the adult mind quickly reaches saturation point. And when that is reached, no further immediate progress can be made.

you can have a

PRESS CUTTING LIBRARY

free

In these days of economies, the last thing we should think of cutting down is the bill for new books for the library; being only human, it is one of the first bills we tend to scrutinise with a cold eye. Here is a suggestion whereby we get something for nothing—at the cost only of some planning and routine work by the pupils.

ONLY journalists know how dependent they are upon their periodical's library of press-cuttings. In Fleet Street dog may not eat dog—though Mr. Randolph Churchill seems to think they should—but journalists certainly spend quite a bit of their time "digesting" one another. One has only to take out a file from a press-cuttings library on a certain subject, or begin to make one for yourself, to see how full the world is of echoes. However, the lazy habit of cribbing, or the gentle art of précis and paraphrase, are always with us. A collection of cuttings is always helpful and can become a unique and first-rate tool of reference.

Outside the world of newspaper offices one rarely meets with a cuttings library. Coming across one recently in a school convinced us of its value and made us wonder why more schools do not attempt to build up one for themselves, at very little cost. Into most schools come a wide and varied selection of newspapers and periodicals; it is well worth while making part of the perishable permanent.

The usual way in which cuttings are kept is to begin with strong manilla envelopes, each marked with the subject it is to contain (e.g., *Churchill, Sir W. S.*, or *Railways, pre* 1900). It is advisable to paste the cuttings on sheets of cheap foolscap paper, stamping them with the date of the issue of the periodical from which they are taken, and writing in the name of that periodical in a way that becomes conventional, i.e., either at the head or end of each cutting.

The suggestion to begin collecting a subject in an envelope is made with an eye to economy; we know well enough the cost of more permanent folders. As a subject grows—or *if*—it can be promoted to a folder or folders. The folders can be chosen to fit into steel filing cabinets of drawers, capable of expansion with the library.

Millions of words appear in a single year in the newspapers and magazines—clearly any collection must be selective.

One way in which this has been done in a school is this. Pupils of appropriate ages were all told of the intention to begin a collection of press-cuttings and were asked to submit the names of subjects—people, countries, hobbies—in which they were interested. Precision was insisted upon. It is no use for some optimist, however enthusiastic, to take on, say, *"Labour Politicians."* He must choose his man. *Railways* is too wide a theme; subdivision is necessary into, say, *Railways—Model, Railways—Historical, Railways—Stations*, etc., etc. Generally, it was found that most pupils, following their own interests, made

(Continued on page 511)

continuing

shoe care

deteriorate, to become brittle and crack. This is true of normal perpiration of healthy individuals and, of course, the effects are more marked the more copious the perspiration is. Injurious effects can be minimised by frequent changes of footwear, so giving the shoes ample opportunity to "air," and by attention to foot hygiene. Shoes not being worn should be kept on good-fitting trees which will help to diminish cracks by reducing creases and so preventing perspiration settling in them.

Finally, the correct and regular cleaning of footwear will ensure that they will last longer and keep their shape and water resistance better.

So here are some rules to keep in front of the "bootboys":

Shoes with uppers of shiny leather

For the maintenance of leathers of this type the object should be to build and maintain a continuous wax film over the shoe. To achieve this a good polish or cream must be applied regularly as described below.

1. If only slightly dusty or dirty, clean with a cloth or by brushing lightly, then apply cream or polish as in (3) and (4).

2. If very dirty or muddy remove lumps with a blunt knife, preferably as soon as the shoes are taken off, then sponge down using a minimum of water and wipe with a dry rag. Do not rub hard or gritty particles will damage the surface of the leather, and do not wet any part of the shoe more than is necessary.

3. When dry apply a good-quality shoe polish or shoe cream in accordance with any instructions given by the makers. Never use polish or cream to remove dirt; get the dirt off first.

4. Polish by brisk but gentle use of a soft brush or with a cloth. For the final polish use a velvet or other soft, clean cloth.

An accumulation of old polish may make shoes dark or shabby. They can be revived by the careful use of a proprietary solvent ("spirit") cleaner of the type sold for removing grease spots.

Shoes with suede uppers

1. Normal dirt and slight mud is best removed with the special rubber brush sold for the purpose, or with a stiff-bristled brush.

2. If allowed to become very muddy it is difficult to restore the appearance of suede. The best treatment is to scrape off as much as possible with a blunt knife and then use a damp cloth; soapy water can be used if necessary. Allow to dry and then brush up as in (1).

3. For oil or grease stains use a proprietary solvent cleaner sparingly. For other stains fine sandpaper, block salt, art-gum or pumice-stone may be effective.

4. If necessary, to level up and restore the colour, apply a liquid suede dressing of the appropriate shade. The nap should be raised with a brush before and during drying. Alternatively, suede powder of the right shade applied with a pad can be used.

White shoes with matt finish

1. Normal dirt can be brushed off, but if necessary a minimum of water can be used.

2. Apply a good white shoe cleaner and follow the instructions given.

Dubbin

If dubbin is used to impart extra waterproofness and flexibility it is best applied when the footwear is still wet with a second application, if desired, when the boots or shoes have dried out. It is emphasised that the use of dubbin makes it very difficult subsequently to obtain a polished appearance.

Leather or saddle soap

A good leather or saddle soap is a preservative which keeps leather (other than suede) soft and supple. If used sparingly it does not prevent a polish being obtained.

OUR FRONT COVER

this month shows the celebrated painting, "The Football Players," by Henri Rousseau (1908)

C. L. BERRY comments on the controversial question of where the parents' authority ends, and of where the head teacher's discipline begins, raised when . . . .

Eva went to SCHOOL IN SLACKS

THE Queen's Bench Divisional Court on October 14, gave a judgment of considerable importance to headmasters and headmistresses. The ruling of the Lord Chief Justice, in which Mr. Justice Sellers and Mr. Justice Havers concurred, upheld the right of a headmistress to refuse admission to her school to a girl who was wearing slacks—or, as this plural garment used to be called, trousers.

In December, 1952, a parent was convicted and fined 10s. by the Warrington magistrates on a summons for his thirteen-year-old daughter's non-attendance at school. What had happened was that the girl had been sent to school wearing trousers instead of a skirt or frock as worn by the other girls. The acting headmistress had sent her home as being improperly dressed for school. The magistrates held that the pupil was thereafter absent from school without proper cause or reason and that the parent had therefore failed in his statutory duty to the child as laid down in the Education Act, 1944.

The parent appealed to the Liverpool County Sessions and on March 10, 1953, the story was told to the Appeals Committee and thus to a wider public than before. For the Warrington Local Education Authority it was stated that the child had been absent from school for about a year with rheumatic fever. On her recovery she was sent to school on many occasions in the winter wearing "slacks." She was sent home because her dress contravened school rules unless medical evidence was produced in support of it. The mother was stated to have refused to produce a medical certificate or even to send the child to be examined by the school medical Officer. This inaction on the parent's part was notable, in view of his claim that the girl wore trousers for health reasons. The school medical officer agreed that a child who had suffered from rheumatic fever should be warmly clad, but said that the wearing of trousers would not be any particular help. The acting headmistress, asked to give the reason for the rule against the wearing of trousers by girls, said that trousers were considered "unseemly and unhygienic." Thus the Appeals Committee was led to consider what was really an irrelevant issue, namely, the seemliness of trousers for girls. At the Liverpool hearing the girl herself—dressed in white blouse, green cardigan and fawn trousers—stood before the Appeals Committee. "Do you consider that unseemly?" the head mistress was asked, to which she replied: "Yes." Allowing the appeal, the Chairman of the Appeals Committee said that after seeing the girl in her "slacks" in Court, the Committee thought the garment "altogether seemly and unlikely to arouse comment." Many people will, in fact, wonder why trousers should be "unseemly and unhygienic" for a 13-year-old girl and not for a 13-year-old boy. Would the same condemnation apply to a 13-year-old boy wearing kilts instead of trousers? Had that been the issue the case might have ended there.

Further proceedings

The Warrington Education Committee at its next meeting instructed the Town Clerk to inform the parent's solicitors that the Local Education Authority intended to apply to the Appeals Committee for a case to be stated for the opinion of the High Court. It was hoped that the parents would meanwhile, as indeed the Appeals Committee had suggested, reconsider the position, allow their child to be medically examined "and arrangements made by the school medical officer so that her school activities may be regulated so far as her condition requires." If, notwithstanding such medical advice, the parents still considered that their daughter should wear

" slacks," she would be admitted to school so clothed, pending the outcome of further proceedings if contemplated. The child had, in fact, gone to school in " slacks " after the Appeals Committee had ruled in favour of the parent, and had been refused admission to the school. The Town Clerk's letter sought to meet that situation.

The Court of Appeal, Queen's Bench Division, allowed the Local Education Authority's appeal against the quashing by the Liverpool Appeals Committee of the conviction and fine by the Warrington magistrates. Commenting on the mother's statement that she was " the best judge of how her child should be dressed," Mr. Justice Sellers said that it might be chaotic if every parent was free to decide what was a reasonable school dress for their children. For the Local Education Authority, it was stated that the girl had never been suspended by the headmistress. It was the parents who determined that she should not go to school in the approved school dress. The Liverpool Appeals Committee, he said, had misdirected themselves in considering the seemliness of " slacks." It was not for the Appeals Committee to decide a school uniform. For the parent it was stated that this was apparently the only case in which a parent had been convicted for a breach *not of statute law but of a school rule.* The Lord Chief Justice, in reply, asked if the headmistress must not have authority in matters of discipline and was not the dress of a child in school such a matter? Mr. Justice Sellers asked where was the limit? Some children liked to dress up grotesquely, as Red Indians, and so on.

In giving judgment, the Lord Chief Justice said that the case came before the Court "on a dry point of law." That point was, whether or not a parent had the right to send his child to school dressed in a particular way or whether the headmistress was entitled to refuse to admit a child so dressed. Two cases decided before the Education Act, 1944, showed that if a parent sent his child to school in circumstances in which he knew that the child would not be admitted, the parent had committed an offence. He was not " causing his child to attend school regularly." The Education Act, 1944, Section 17 (3) provided that every maintained secondary school should be conducted in accordance with Articles of Government. In the case before the Court, the Articles of Government of the secondary modern school in question provided that *the headmistress should control the internal organisation, management and discipline of the school.* In his opinion, Quarter Sessions had been wrong in their interpretation of Section 39 of the Act. Under the 1921 Education Act " a parent was excused by any reasonable excuse." This was materially changed by the Education Act, 1944, which enacted that it was no longer open to magistrates to find " reasonable excuse " and which confined the excuses for not sending a child to school to those set out, which include " sickness or any unavoidable cause." That was the construction which the Court must give to Section 39.

The Court was not concerned with what was more reasonable or desirable. The Lord Chief Justice made it clear that in so concerning itself the Quarter Sessions had gone wrong. The headmistress had the right and the power to keep discipline. *In saying that the child could not be received in school in a particular costume, without any compelling medical grounds for it, the headmistress was only acting in a matter of discipline and one which must be within the competence of any headmistress or headmaster of any school.* If it were enough that parents should sincerely believe that the wearing of a particular costume was in the child's interest, the children of nudists would have a right to be received at school naked. One would not suggest that a headmistress would be obliged to keep a naked child in her school. Mr. Justice Sellers and Mr. Justice Havers concurred in the judgment and the conviction was therefore restored.

What would happen if a school principal was converted to nudism and made school rules in accordance with such convictions? The possibility may be too remote to call for consideration here. The judgment of the Court of Appeal will undoubtedly be of real assistance to many headmasters and headmistresses.

INCOME TAX

(Continued from page 496)

be allowed in full against the profits in the year in which the expenditure is incurred. Of course, if you increase your stock of equipment, by furnishing an additional classroom or dormitory, the initial purchases must not be charged against profits.

Cap and gown

This is an item which frequently escapes your attention when preparing your accounts for income tax purposes. No doubt you have found that your cap and gown need repairs, renovations and, occasionally, renewal, just as all other school equipment, and the Inspector of Taxes recognises this. Apart from your initial expenditure on your cap and gown, all bills should be added in with the school expenses.

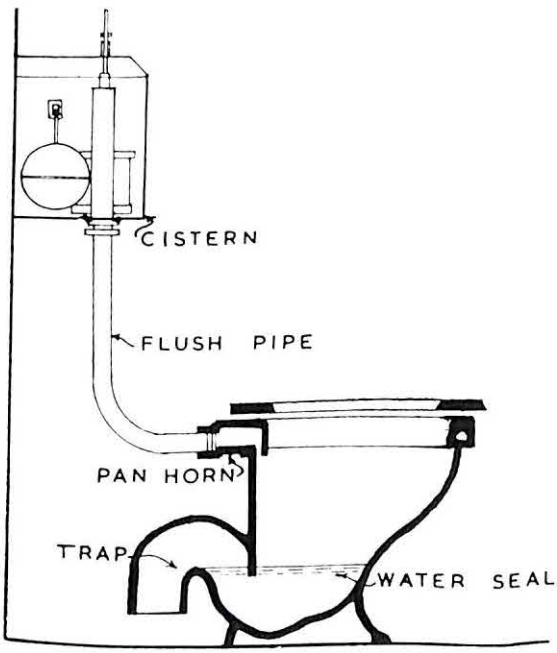
One final item. If you decide to get professional assistance with your income tax problems, remember that the cost of this assistance is also allowed against your profits for income tax purposes, so you can even save on being advised how to save!

The Maintenance of SCHOOL LAVATORIES

THE efficient design and maintenance of lavatories serving schools and colleges is of the highest importance; and the risk of infection and other unpleasant results which may be the outcome of unclean W.C.'s cannot be over-emphasised. However, to build and equip school lavatories in an adequate fashion can cost a great deal of money, and sometimes heavy expenditure is required even for minimum standards of sanitation. An unfortunate result of this is that schemes are often postponed, possibly for lengthy periods during which bad conditions prevail. Many educational establishments have to content themselves with sanitary arrangements of varying antiquity. With this in mind, the various designs of lavatories are outlined in the following article, together with the measures necessary to maintain them in good order.

Water closets

The usual type of water-closet is made in pedestal form, as shown below, so that no wood casing is required. A good water seal of not less than 2 in. depth is essential to prevent the passage of foul gases from the drain. The flush should be rapid, with the rush of water scouring the whole of the pan's interior. Siphonic closets have an extra deep seal with rather small outlets which are prone to obstruction. Valve closets are still to be seen in the older schools, but are no longer manufactured. They have lever-operated water supply valves with adjustable air regulators. The outlet from the pan is closed by a flap. If the pan fails to hold water, a new rubber washer must be inserted in the flap. Pieces of grit under its seating will also cause leakage. If water continues to run into the pan when the handle is at rest, the supply valve will need a new rubber seating. Should the water supply be cut off suddenly when the handle is depressed after the flush, it is a sign that the air regulator has a leak in its bellows or container. Valve closets are usually enclosed by a wooden casing, and care should be taken against the presence of dirt or vermin.



Blockages in the traps should receive immediate attention, as delays will permit additional deposits to accumulate and render clearance more difficult. The harder the substance the stouter the tool necessary, but extreme force may seriously damage the drain pipes or joints. Appliances for the purpose can be purchased quite cheaply, and the outfit will include steel springs in sections from 3 to 4 ft. long, with such fittings as worms, plungers, hooks and plates of various shapes. Spasmodic stoppages are sometimes caused by round tin lids turning over in the trap, or tennis balls which rise and fall, causing alternations. These should be bent or pierced accordingly and removed. Masses of rag or such-like can be dragged out by the repeated use of the worm; spike piercers should be used for very hard and large masses. Bends can be negotiated with wheel tools. Finally, brushes should be passed through to cleanse the pipes from adhering material.

Flushing cisterns

The purpose of the flushing cistern is to prevent the waste of water and to regulate the supply. The quantity of water supplied to the cistern is governed by a ball valve, the valve being kept closed by a lever attached to a copper ball which floats on the water surface. Should the flush fail to operate, the water level can be raised by bending the lever very slightly upwards.

(Continued on page 512)

. . . SUGAR . . .

THE de-rationing of sugar is even more of a blessing to the caterer, especially where the preparation of children's meals is involved, than it is to the housewife. Now that it is possible to get any amount or sugar in any of its many forms, more excitement can be brought into the menus. Cakes and puddings can be of better quality, fruit served more frequently, pies will be more juicy and parties more glamorous.

But it would be a mistake to abuse the de-rationing by over-extravagance with sugar. After nearly 14 years of limitation, children and many adults have not acquired a very sweet tooth; it is not unusual to find them expressing a preference for many foods much less sweet than some of us remember sweet things in the 1930's. Nor is it nutritionally sound to be very liberal with sugar. Of course, sugar provides energy but with the exception of Barbados—which has a trace of iron—it contains no other nutrient. There are other foods from which children may derive energy and at the same time take in some other essential elements. Fats and starches are also energy foods and there are few ingredients in these groups which do not also contain minerals or vitamins. An advantage of sugar as an energy food is, however, the speed with which it is absorbed. Hence the medical use of glucose, a chemically simple form of pure sugar, for tiredness, exhaustion and lack of energy. But it is a mistake to satisfy children's appetites with sugary foods and leave them no desire to eat other things. There is much wisdom to be said for the maxim of "A sweet after a meal, but never before."

For the sake of good health and sound teeth, it is to be hoped that the de-rationing of sugar will not result in a tremendous increase in the quantity consumed. The amount used now per head of the population (taking into account allocations for manufactured confectionery) is about 2 lb. per week. This compares very favourably with the average consumption pre-war. It is better to transfer the use of sugar to more desirable purposes than to increase the over-all quantity being consumed.

Much has been said about the quality of sugar; differences between cane and beet sugar have been argued but chemically and physically there is no recognisable difference, nor is there reason to believe that sugar from either source is not equally suitable for cooking and preserving. The consumer is unable to recognise the nature of the sugar purchased. About 75 per cent of the sugar available to-day is imported, the remainder being manufactured in this country from sugar beet, and it is the policy of the Government to endeavour to maintain the production at home.

Now that it is possible to fill the store cupboard with sugar, it is the time to consider the best conditions of storing. Dryness is essential, particularly during the damp winter weather, as sugar will attract moisture from the air and become lumpy, sticky and difficult to use. Store sugar in airtight containers. When purchased in wax cartons it may be left in the packets, but if the cartons are unsuitable it is better to place the sugar in china or ware covered containers. For large quantities, galvanised and enamelled bins are perfectly satisfactory. In bringing sugar into greater use in the kitchen, it might be as well to give prominence to those recipes in which sugar is used to special advantage as well as sweetening, e.g., toffee, cake icings, preserving, sweet-making, caramels, etc. Remember when making caramel to avoid over-heating the sugar until it becomes very dark brown, otherwise it will be rather bitter. Sugar caramelises at a temperature of 350 deg. F., but it is not necessary to use a thermometer for general purposes in cooking. When making sweets, a sugar thermometer is a great help because, as when heating fat, it is difficult to measure the temperature of heated sugar accurately. It is, however, possible to judge various stages by the changes which take place when sugar is heated, testing a

. . . GALORE . . .

little drop of syrup from the melted sugar in a cup of cold water.

There are five stages easily recognised and for different sorts of sweetmeats, icings, toffee and bon-bons, these stages are useful:—

1. Thread stage: As the syrup is dropped from the spoon a very fine thread is seen. This may also be pulled between the finger and thumb. Temperature at this stage is about 230 deg. F.

2. The Soft Ball stage is recognised when a little syrup dropped into a cup of cold water can be formed into a soft ball with the fingers. Temperature 236 deg. F.

3. Hard Ball stage: Syrup dropped in cold water forms a hard ball when pressed with the fingers. Temperature 254 deg. F.

4. The Crack stage: Syrup forms crisp, crackling pieces immediately when dropped into water. Temperature 290 deg. F.

5. Caramel stage is when the sugar turns brown. From 350 deg. F.

Here are some recipes and suggestions for using a little extra sugar to big advantage.

1. A very attractive finish for a fruit pie or pudding is obtained by first very thickly greasing a pie-dish or basin with margarine and then sprinkling a thick layer of demerara sugar. Cook in the usual way but turn out when hot. A golden-brown toffee coating gleams all over the pudding.

2. *Caramel Custard:* To 8 oz. sugar add ¼-pint water and heat in a heavy pan, preferably copper, until the sugar melts and turns to caramel stage. When golden brown pour the sugar into pudding bowls, inverting and turning the bowls so that the caramel makes a complete lining. Allow to cool—this only takes a few seconds—and then use the basins for making steamed custard. Caramel custards may be made with custard powder, in which case the cooked, thickened custard, sweetened to taste, is poured into the basins and allowed to cool. Custard powder-made caramel puddings can only be served cold. During the cooling, the custard dissolves the caramel slightly, and if left overnight before turning out, caramel sauce will completely coat the custard.

3. *White Snow Icing for Cakes:* Children adore iced cakes and a little icing, if only thin glacé icing, improves plain biscuits and cakes. Here is a recipe for making an icing by first boiling the sugar. This makes a much greater volume than usual recipes and a little goes a long way:

Boiled Sugar Icing:

1 unbeaten egg-white,
6 oz. granulated sugar,
4 tablespoons cold water,
½ teaspoon vanilla essence.

Beat the egg-white very stiffly. Melt the sugar and water and bring to boiling point. Boil until the sugar reaches the soft ball stage. Add to the egg-white and vanilla, beating continuously until it is of cotton-wool consistency. Spread on cake.

4. *Coloured Sugar:* Put ½ lb. granulated sugar on a marble slab and add a few drops of vegetable colouring. Rub it well into the sugar with the hands until the colour is even. Put the sugar on a tray and dry it in the oven. Then store in a covered tin and use as required.

5. *Orange Sugar:* Finely grate the peel of 2 or 3 oranges into ½ lb. granulated sugar. Mix well—dry on an open tray—store and use as required to sweeten and flavour puddings and sweets.

6. *Sugar Sparkle:* The surface of many cakes like Madeiras, queen cakes and rock cakes is much improved by the addition of a light sprinkling of castor sugar just before the cakes are put into the oven.

7. *Glazing with Sugar:* Yeast buns are much improved by brushing on a glaze of boiled sugar and water (about two tablespoons of each for two dozen buns). Brush the buns immediately they are removed from the oven.

8. Home-made sweets can be inexpen-

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sive to produce and easy to make. This *Coconut Ice* is a very practical recipe:

1 lb. granulated sugar,
¼ pint milk,
Pinch tartaric acid,
4 oz. coconut,
Colouring.

Boil the sugar and milk until it reaches the soft ball stage. Add the acid and coconut and mix thoroughly. Spread half the mixture into a shallow greased tin. Add a little colouring to the remainder in the pan and spread it on top of the first layer. Press slightly on the surface, mark in squares and leave to set.

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continuing

Cold Weather Puddings

be. The addition of a small proportion of syrup or treacle to the mixture improves the texture and taste and colour. Many a rich-looking cake and pudding owes its good brown appearance to black treacle, gravy browning or burnt sugar very well mixed into the other ingredients.

For junior children the steamed or baked pudding can be made with equal proportions of breadcrumbs and flour and, if so, more liquid may be needed to attain the desirable consistency. Rose-hip syrup and black currant purée or juice are excellent to serve with plain sponge puddings. Dried figs and apricots should be cut up and soaked before being used for steamed puddings, and drained of surplus moisture before being added to a mixture. If they are used as a pastry filling a little moisture is harmless and, indeed, helps to absorb the sugar and make syrup.

Suet pastry is excellent, of course, for many savoury dishes.

A sheet of suet pastry spread with seasoned minced meat and finely-chopped onion can be rolled up (with the final edge of pastry firmly sealed), brushed with egg and milk and baked in a hot oven very quickly. It can, as with short or puff pastry, be made into pasties, plate pies or in any other form of container for savoury fillings—cheese, fish, vegetables, etc.

A good stock-pot is a "must" in the kitchen and nutritious gravies can be a valuable help to a meal. Beef bones, mutton bones, cow-heel, ox-tails (which butchers complain are difficult to sell!) all help to make a meal something more than merely food to stay the pangs of hunger! A good stock or gravy is a valuable help to poor quality meat and can redeem dishes made from such.

E. H. MIDGLEY

School and College

continuing

A Press Cutting Library

worthwhile suggestions and the aggregate of the enthusiasms promised a good and varied beginning for a collection. For those not so quick with suggestions a list of choices was drawn up and the opportunity was taken thereby to balance and extend the list.

The whole scheme became a minor "project" and pupils collected cuttings for a term. Fortunately, the will to collect is one very deeply rooted in human and, particularly juvenile, nature and almost universal enthusiasm was shown.

It seems a far more worth while collecting "itch" to collect cuttings than to collect train numbers or (some may agree) stamps.

At a day school, where a pupil is more likely to have access to a greater variety of periodicals, there are not likely to be the clashes there were at the boarding-school that tried this project. There were judgments, sometimes harder than the judgment of Solomon, to be made as to who should have a certain page of a periodical from the reading-room—Smith Major's "bit" was on the back of a vital part of something Jones was jumping eager to have.

One term's work resulted in a very promising start to the library and the collections that justified it were promoted to folders. It was found that the attitude, the sense of responsibility, the degree of care in use, shown towards the cutting library was impressive.

Here, clearly, is a classroom idea of considerable value. Interest is focused on a defined theme It may be continued for much longer than a term, a pupil taking upon himself or herself the responsibility for watching the press and magazines for articles and news items for a school year. Or, it may be decided, a "new eye" may be advisable after a time and the responsibility for feeding cuttings into a certain folder be transferred. Those are considerations for the form master, or librarian, in charge of the project to decide for himself.

What is more important, here is a very valuable tool being forged at little cost. It has been found, where cutting libraries have been built up, that much of great use and interest can be compressed into a remarkably small space. Many folders were in great demand for private and "wet afternoon" reading. Moreover, to provide material for essays, for reference by the various specialised school societies, there was soon a very worthwhile quarry in existence.

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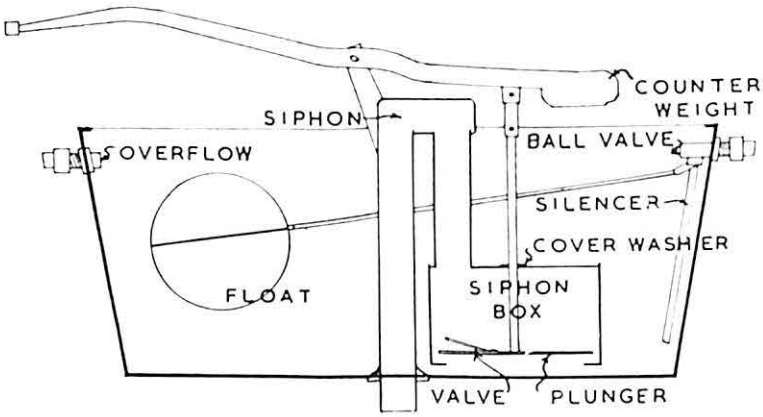

If too much water enters so that it flows out through the overflow pipe, the lever can be bent downwards. Great care should be taken in bending as the lever is usually quite brittle.

An overflow is sometimes caused by pieces of grit being caught between the valve and its seating. This trouble may right itself when the cistern is flushed. If not, the valve must be dismantled and the seating cleaned. Another cause for overflowing may be that the ball touches the side of the cistern and cannot rise with the water. The lever should be bent accordingly.

Occasionally a loud vibrating or humming noise comes from the cistern as the water runs in. This will probably be due to a worn washer in the ball valve. After shutting off the water supply at the main, remove the entire valve and dismantle it by taking out the split pin holding the stem to the body and keeping the piston or jumper in position. Screw off the head of the piston and replace the worn washer. It is important that the new washer is cut from insertion rubber, as pure rubber will swell when in use and need regulation later. The jumper and working parts of the body should be cleaned with emery-paper to remove lime deposit or encrustation. Ensure that all working parts move freely and examine the seating of the valve. If this is worn or pitted it should be reseated with a tool that can be obtained for the purpose. Smear tallow on all the working parts and re-assemble. After a new washer has been inserted the level of the water in the cistern will have altered. This should be adjusted by bending the lever as required.

A ball valve should allow the flushing cistern to fill within two minutes. If it does not do this, first examine the rubber washer as it may be swollen. The aperture must be clear and the pressure unobstructed. If these points are correct, a ball valve with a lower pressure, i.e., larger aperture, is required. Alternatively, if the cistern fills in the correct time but does not shut off despite a new washer or reseating, a higher pressure valve is necessary.

Service pipes

A common cause of failure in lavatory pipes and fittings is corrosion. Rust is its most familiar form, and the metal can become pitted and perforated in a comparatively short time. A good protection against this danger is the application of a coat of vaseline; lard with camphor; blacklead applied as a polish and various bitumen compounds. Also suitable for any ferrous metal except stainless alloy steels is red oxide paint, or a coat of good red lead paint as a primer.

The tarnishing of pipes and fittings made from such metals as copper, lead or zinc is actually the formation of a film which helps to protect the surface. However, in the damp conditions often existing in lavatories, corrosive action can be set up which is partly electrolytic due to the acid character of the moisture. Electrolytic corrosion also results from the contact of two electrically dissimilar metals such as copper and iron in the presence of moisture. If the water becomes warm or is otherwise made "soft," the action is accelerated. The soldered joints of a copper ball-float may be attacked, and the trouble may spread, aided by any acid flux present at the joints. To prevent the metal from tarnishing, coats of beeswax, lanoline, vaseline or other greasy substances may be applied. Brass fittings can be polished and protected with a coat of colourless lacquer or cellulose.

The freezing of the service pipes and resultant frost-bursts can be avoided by closing the stop-cock and draining the system. To open a ball-valve, it is necessary to reduce the level of the water in the cistern by flushing. Pipes should be protected by removable wooden casings filled with sawdust, cork or felt. An alternative is to wind hair felt spirally around the pipes, checking that it is

(Continued on page 514)

The thunder of feet, the pounding of a floor covering under the impact of boisterous activity of youth calls for the qualities inherent in linoleum: resistance to abrasive wear, easy to clean and keep clean, noise absorbing for quietness of tread, and to the ever-lasting satisfaction of rate-payers, linoleum, once it is well laid, is an infrequent item in the budget of the expenditure of local authorities. Linoleum of the right grade will still be in use in a school when the scurrying of Smith Minor's feet becomes the dignified pace of Smith Major when he returns to the scene of his youthful exuberance.

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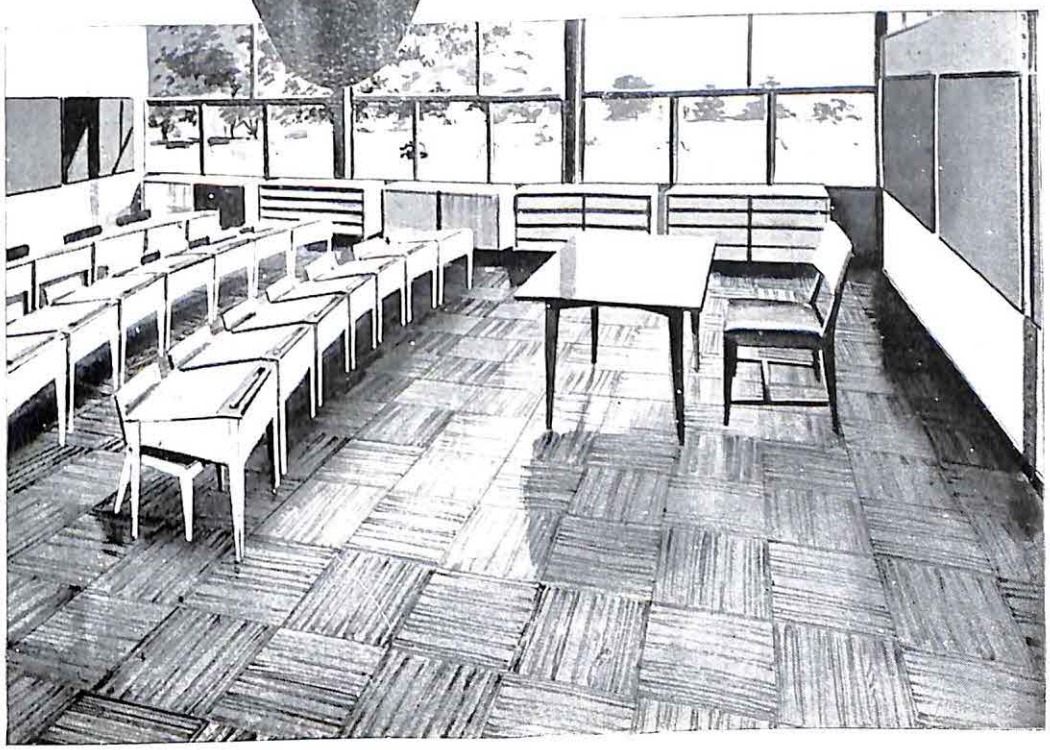

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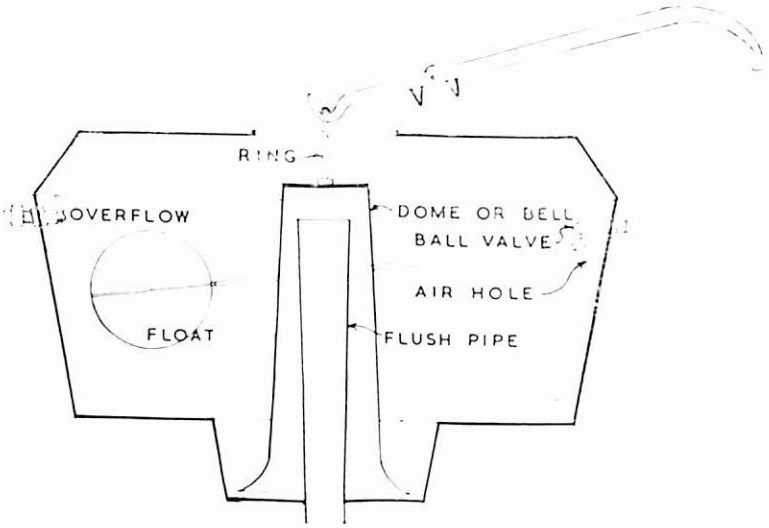
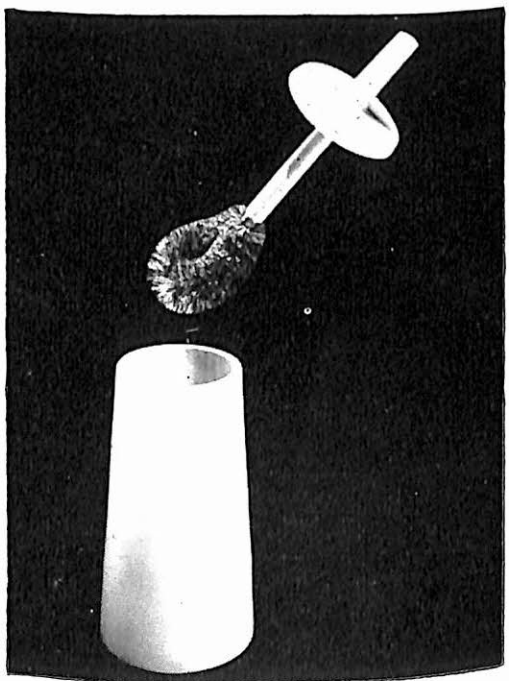


properly overlapped and secured. Flushing cisterns should also be boxed and insulated.

Occasionally a concussive effort is produced in the pipe system due to the quick closing of a tap or ball valve. The usual cause is the jumper of a ball-valve or a loose-jumpered or badly-washered tap which is pushed out by the pressure. This transmits a shock or rebound through the water. The ball of the valve will bounce on the water and start the valve reverberating, thus giving rise to a noise known as water hammer. It can have a very serious effect on the piping system, particularly if lead pipe is used, and bursts may occur due to fatigue. If the water hammer cannot be cured by attention to the taps and valves, or the renewal of worn washers, it may be desirable to attach an air vessel to the system which will cushion the shock hydraulically.

Leakages in the pipes can be stopped temporarily by binding the fractured or corroded section with sheet rubber, perhaps cut from an old inner tube. This must be tightly secured with copper wire. Where the flush pipes connect flushing cisterns to the pans, the ends of the pipes are usually just packed into the pan horns. It is sometimes found that the packing has worn, and that water escapes when the pan is flushed. A remedy is to disconnect the pipe at its lower end, thread the small end of a pear-shaped rubber cone over it, and then bind the larger end of the cone round the horn with copper wire. The smaller end can then be secured in the same way.

The ventilation of the lavatories is of greatest importance. A good cross ventilation by natural means is the obvious solution, and deodorising equipment can also be obtained. An adequate general intensity of artificial illumination is necessary, and the individual lighting of cubicles is desirable. It is an unfortunate fact that a small minority exists which misuses school lavatories. So we get scribbling on walls, wastage and theft of toilet-paper, wrenching of brackets and coat-hooks, detachment of seats, and so on. To defeat these tendencies, light fittings should be of the locked bulkhead pattern where within reach, and the pans and seats of robust, simple design. Fittings must be securely fastened so that they cannot be unscrewed, and toilet-roll holders are on the market which will not allow the roll of paper to be abstracted. Cisterns should be covered to prevent the deposition of rubbish, and the wall surfaces of a washable or easily renewable nature to discourage the execution of murals.



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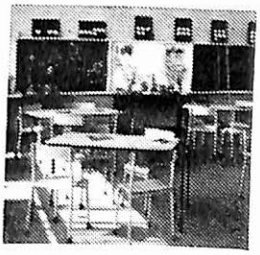

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Part I.

What you should know about your

Heating Apparatus

THE educational theory that discomfort is good for character building and that comfort encourages indolence has now happily been discarded. Most contemporary educationists accept, instead, the proposition that children who are warm and comfortable learn better than children sitting in a bleak, cold and draughty hall, and that, just as with free milk we help to supplement the diet of children inadequately fed at home, so the school can help to provide some of the warmth and colour which unfortunately many thousands of British homes still lack.

There are two principal factors which influence the choice of a heating system for a school; firstly, whether the installation is to be made in a new school or in existing buildings; secondly, whether the school premises are to be used in the evenings and at week-ends, as well as during the day. The same method of heating need not be used throughout the school; hence a third factor which influences the choice of heating appliances is the type of activity carried out in the various rooms; for example, are the children comparatively still, as in a classroom used for formal teaching, or are they active as, say, in a craft room? Other factors being equally well satisfied, the final choice will, of course, depend on which system is most economical—both in the first costs and in running costs.

The heat scource

Heat can be provided directly, by individual appliances in each classroom, or indirectly, through the medium of water or steam, heated in a centrally-placed boiler. The choice between these two systems depends mainly on the relative importance of first costs and running costs, which depends in turn mainly on whether the installation is to be made in new or in existing premises. Generally speaking, central plant costs more to install, because of all the piping involved, and less to run, because solid fuel can be used (solid fuel *can* be used in individual appliances, e.g., slow combustion stoves, but not without considerable inconvenience). To install central plant in an existing building costs a good deal more than in a new building, but this must not be taken too rigidly, because the cost of the piping can be reduced considerably by using "warm-air cabinets" instead of radiators (see under apparatus).

Fuel

Solid fuel is generally accepted as being cheapest, but solid-fuel boilers require stoking, the ash must be disposed of and they must be cleaned out periodically. The amount of attention they need can be minimised by using an automatic stoker, but this naturally increases considerably first costs, although it is claimed that automatically-stoked boilers use less fuel.

For central boilers, the principal alternative to solid fuel is gas. A gas boiler

TABLE I.

Room	Temperature °F.
Hall	57
Gymnasium	55
Dining space	57
Classroom	62
Library	62
Changing-room	65
Shower room	65
Staff room	62
Medical inspection	65
Circulation	55
Coat hanging	55

Recomended air temperatures for the various parts of a school. (From Dr. J. C. Weston's paper on School Heating Research "The Journal of the Institution of Heating and Ventilating Engineers," March, 1953).

(Continued on page 518)

SERVICE BUREAU

Inquiries should be addressed to the Service Bureau, SCHOOL MANAGEMENT, 18-20 York Buildings, Adelphi, London, W.C.2, accompanied by a 2½d. stamp.

Litter bins

Can you let me know the name of a firm which can supply strong metal waste-paper baskets for outdoor use?

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Metal sinks and basins

Please give me the addresses of firms supplying metal sinks and basins for a school kitchen catering for 75-80 persons.

The firms listed above for metal waste bins can supply the type and size sinks and basins you require.

Open air swimming bath

I am proposing to build a small open-air swimming bath, with filtration plant, for school use. Please let me know whether there are any firms who specialise in this business.

Messrs. Gilliams, Ltd., of Purley Way, Croydon, specialise in building open-air swimming baths with filtration plant and they could undertake the entire job for you.

Treating asbestos

Could you please give the name of any firm which supplies cement paint for the treatment of asbestos?

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requires virtually no attention and, although on the surface running costs would appear to be higher, a good deal of the extra cost can be saved because of the ease with which gas-fired boilers can be turned on and off (by time-control apparatus if desired) and there is, therefore, less waste of heat at night and at week-ends. The importance of this saving is, of course, reduced if the school is used outside normal school hours or if the structure is of the solid type which can store heat so that the warming-up period in the morning is reduced.

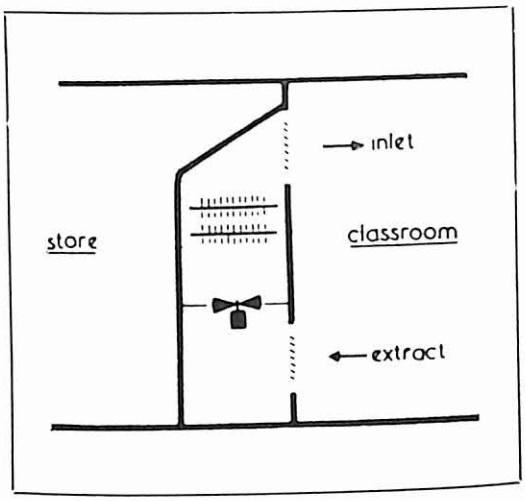
Boilers may also be fired by oil; supplies are always somewhat uncertain, but an oil-fired boiler can easily be modified for gas-firing (and vice versa).

Transferring the heat

There are basically two methods of transferring heat from the source to the occupants of a building—convection and radiation. Most appliances provide part of the heat by the one and part by the other, e.g., so-called radiators.

When a room is heated by convection, it is the air that is heated, the heating apparatus being designed so as to set up air currents, sometimes by means of a fan, which pass continuously over the heating source. The warm air then warms the occupants, and also the walls, floors and furniture from which the occupants in turn derive some heat by conduction. The advantage of convection, or "warm air" heating, is that it enables you to heat up very quickly a large volume, such as an assembly hall or a gymnasium, which is not usually used for long periods and which it would be wasteful, therefore, to keep permanently heated. The short warming-up period is also an advantage in buildings which are not well insulated against loss of heat through the walls, floor and roof, as the shorter the period during which the rooms are heated but not occupied, the less fuel is wasted.

The disadvantage of using warm-air heating alone is that warm air tends to accumulate near the ceiling, while the air near the floor, and the floor itself, remains cool. Hence, when sitting for long periods in a room heated solely by convection there is a tendency to feel chilly, mainly because the feet are cool (and often with poor children wet from leaky shoes), in spite of the fact that the air temperature is at least that normally found adequate (see Table I). Convection alone is not, therefore, ideal for classrooms, unless special types of appliance are used which are designed to counteract this tendency.



Diagrammatic section through a warm air cabinet, with high level output (from Dr. J. C. Weston's Paper on School Heating Research ["The Journal of the Institution of Heating and Ventilation Engineers, March, 1953"]).

In general, radiant heat is preferable to convected heat, since it more closely resembles natural conditions. The weather most people prefer is that when the air is comparatively cool but radiant heat from the sun adequate to keep them comfortably warm. Radiation from a comparatively small source of heat at a high temperature, e.g., the electric bar fire, is less satisfactory than radiation from a large area of heat, e.g., a heated floor or ceiling, at a comparatively low temperature, since the latter most closely simulates natural conditions and because high temperature sources tend to be "directional" and to over-heat small areas of a room while other parts remain cool.

Apparatus

As mentioned above, boilers for central heating plant may be fired by solid fuel, oil or gas. The type of boiler will depend partly on the size of the installation, partly on whether it is to go into a new or an existing building. In the case of the latter the sectional type of boiler is obviously easier to install, but the choice of boiler is very much a matter for the heating engineer, without whom, incidentally, no heating installation can be properly and economically designed. The use of steam instead of hot water is not recommended for schools.

In single-storey schools, where there are long pipe runs to the various appliances, it is often necessary to have an accelerator pump—a small electric pump which maintains a pressure in the system sufficient to keep the hot water continuously on the move.

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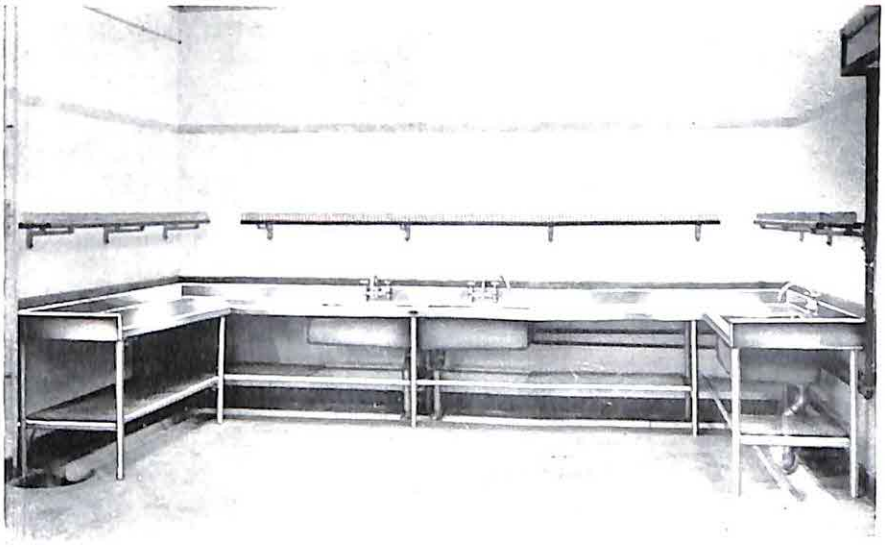

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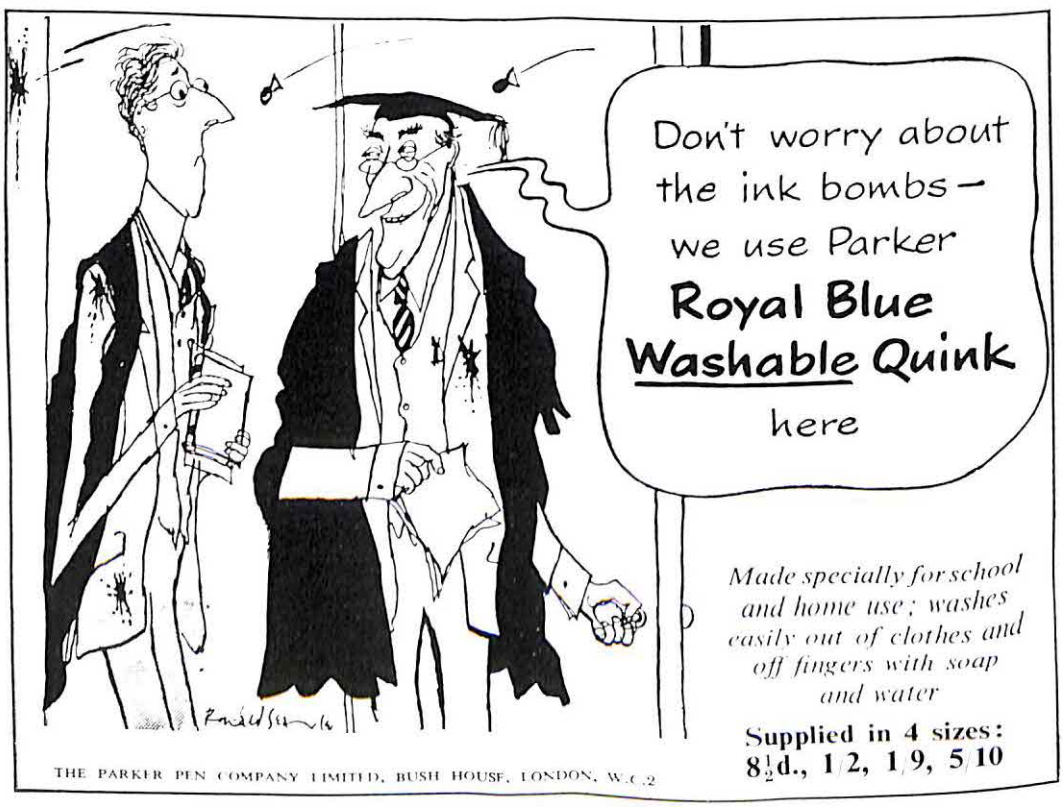

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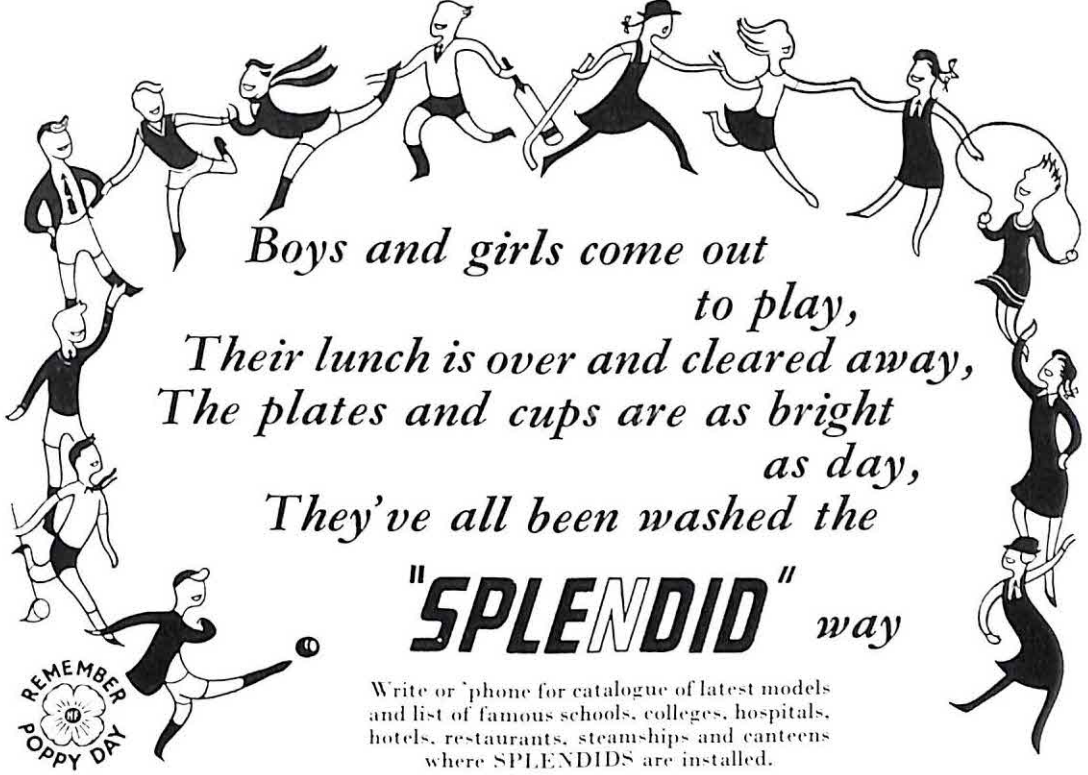

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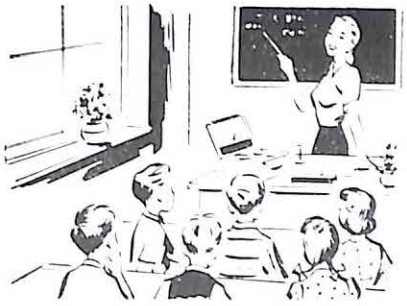

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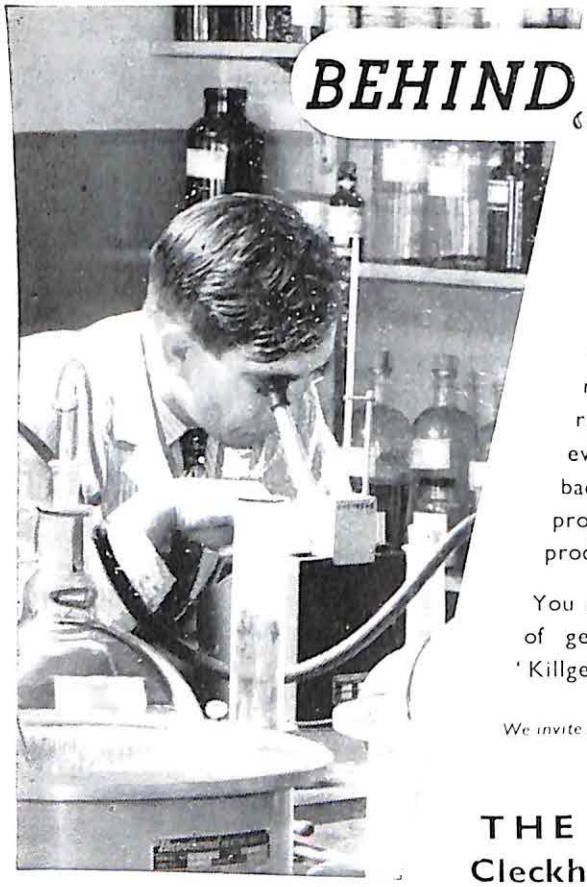

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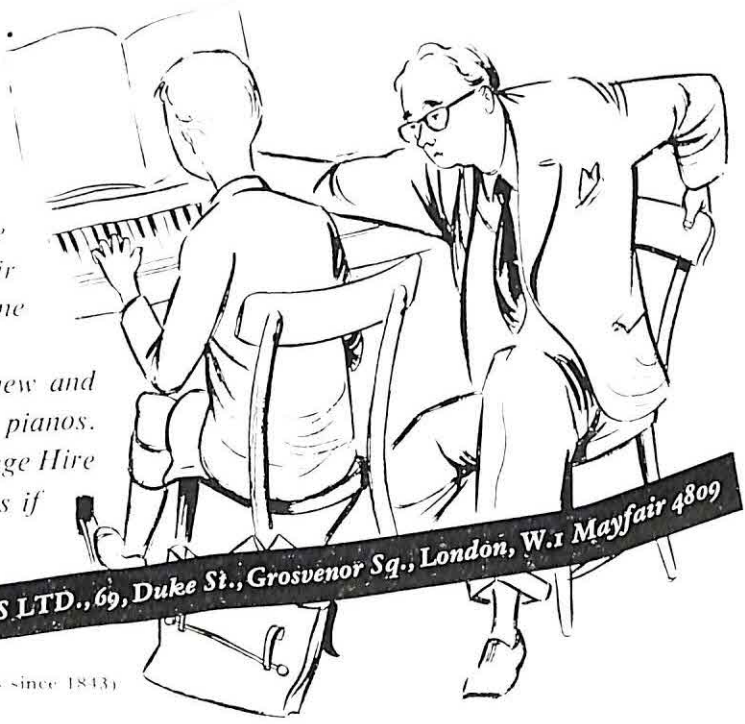

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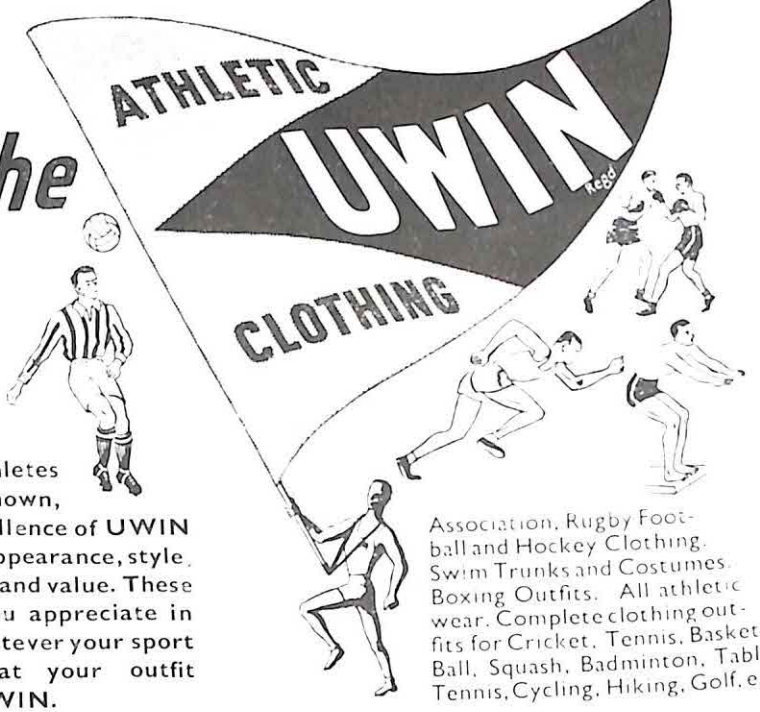

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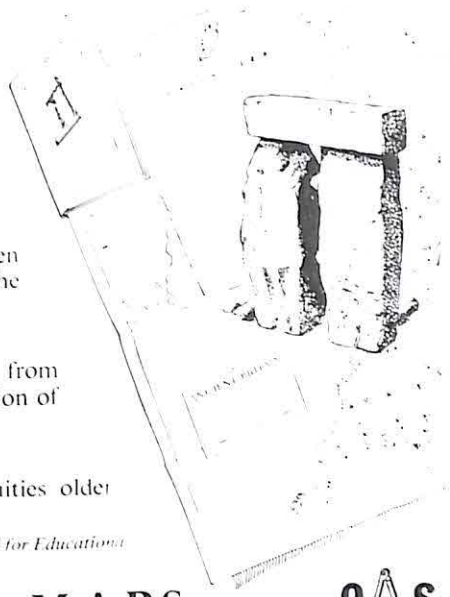

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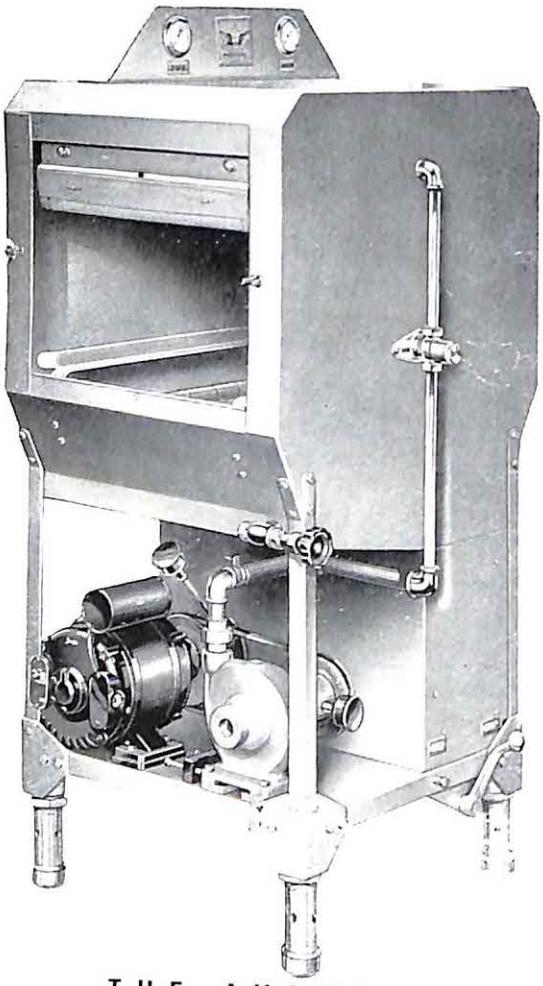

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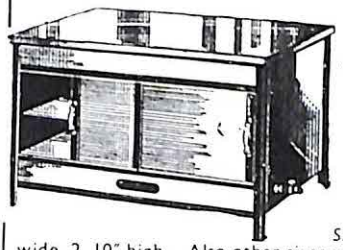

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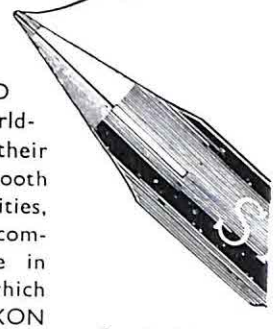

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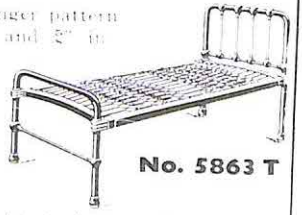

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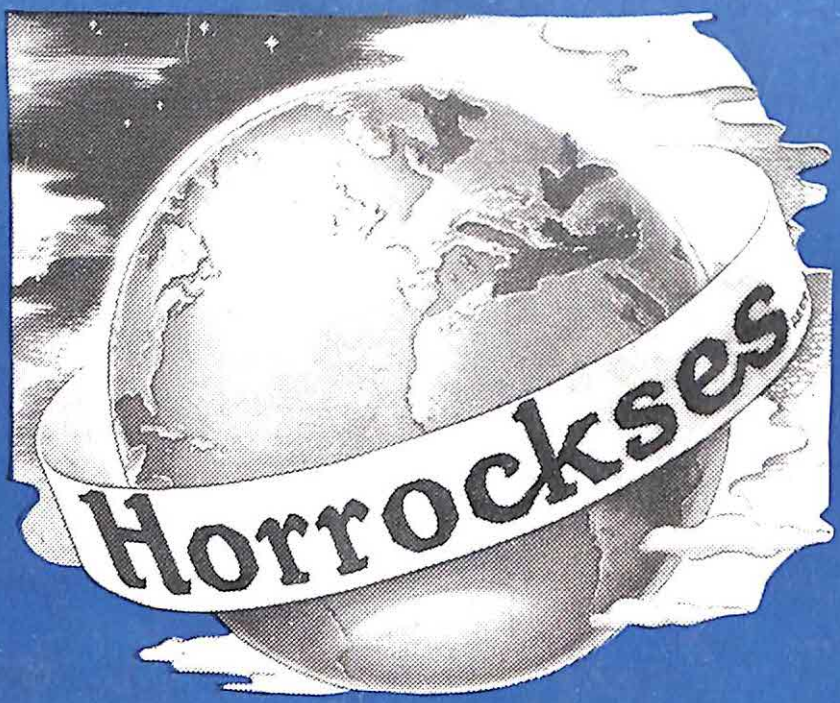

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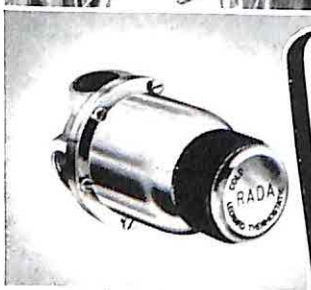

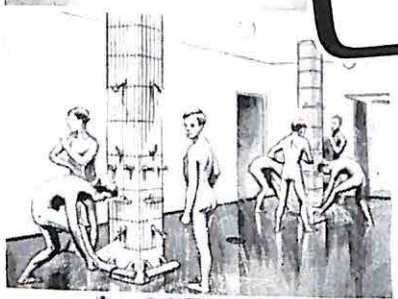

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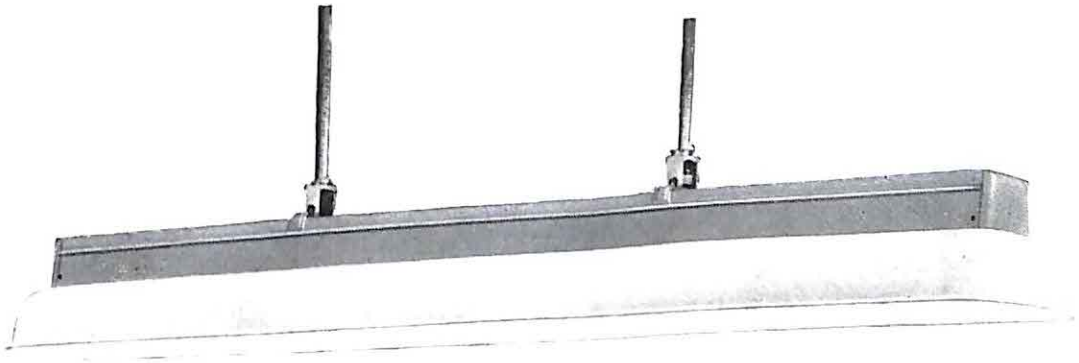

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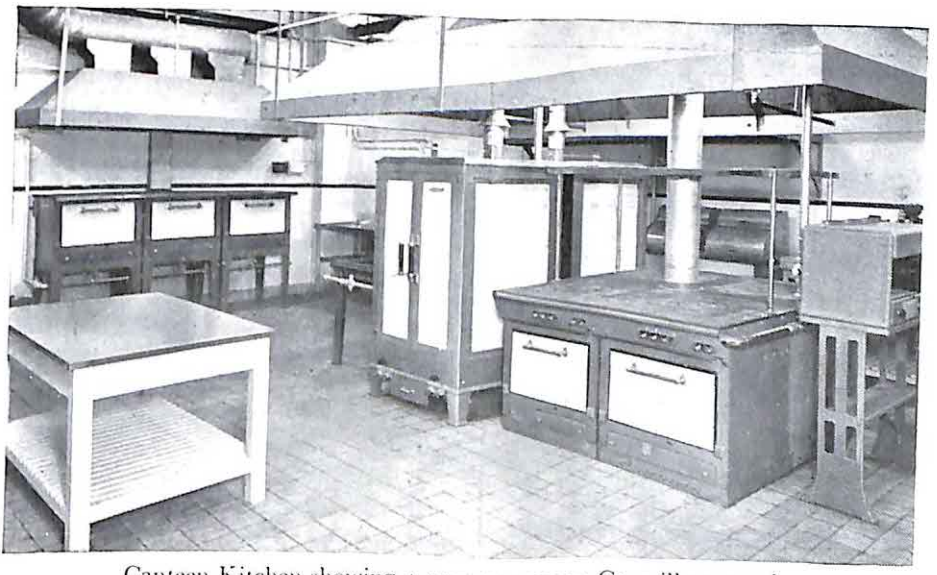

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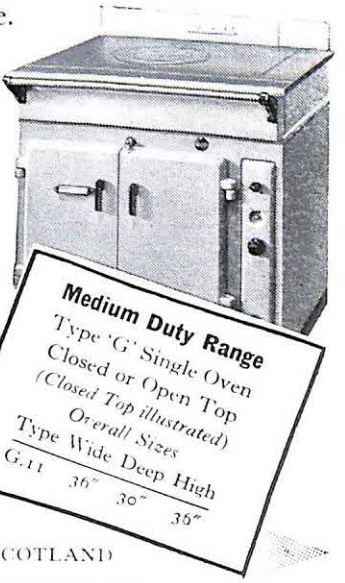

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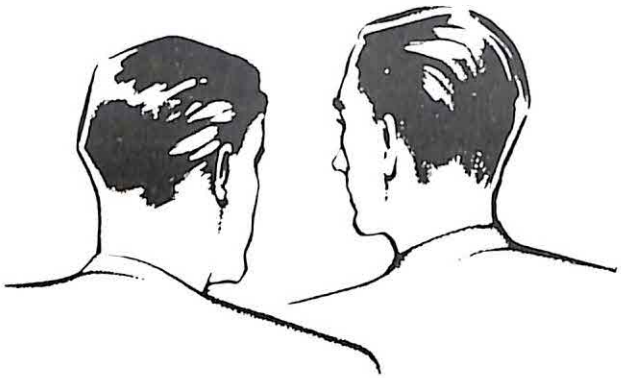

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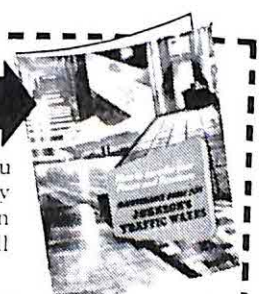

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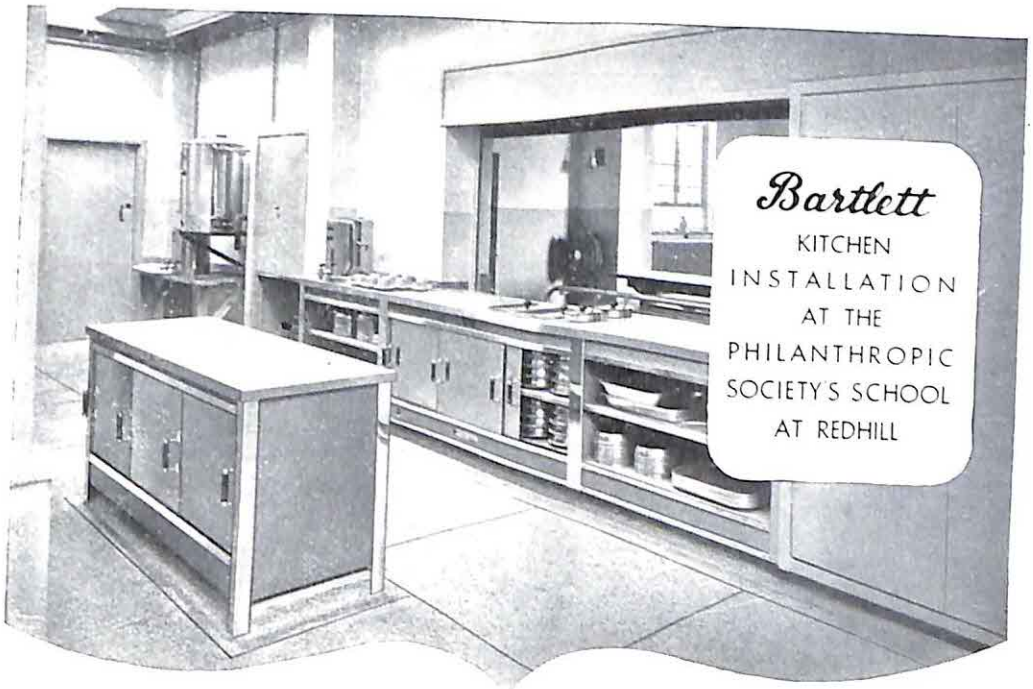

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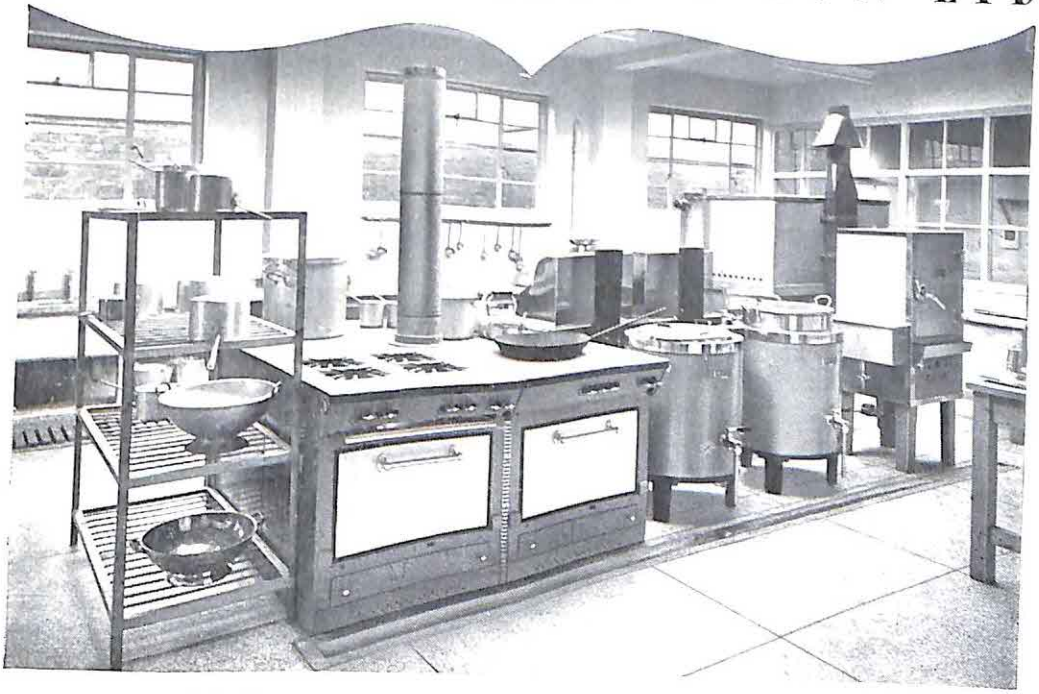

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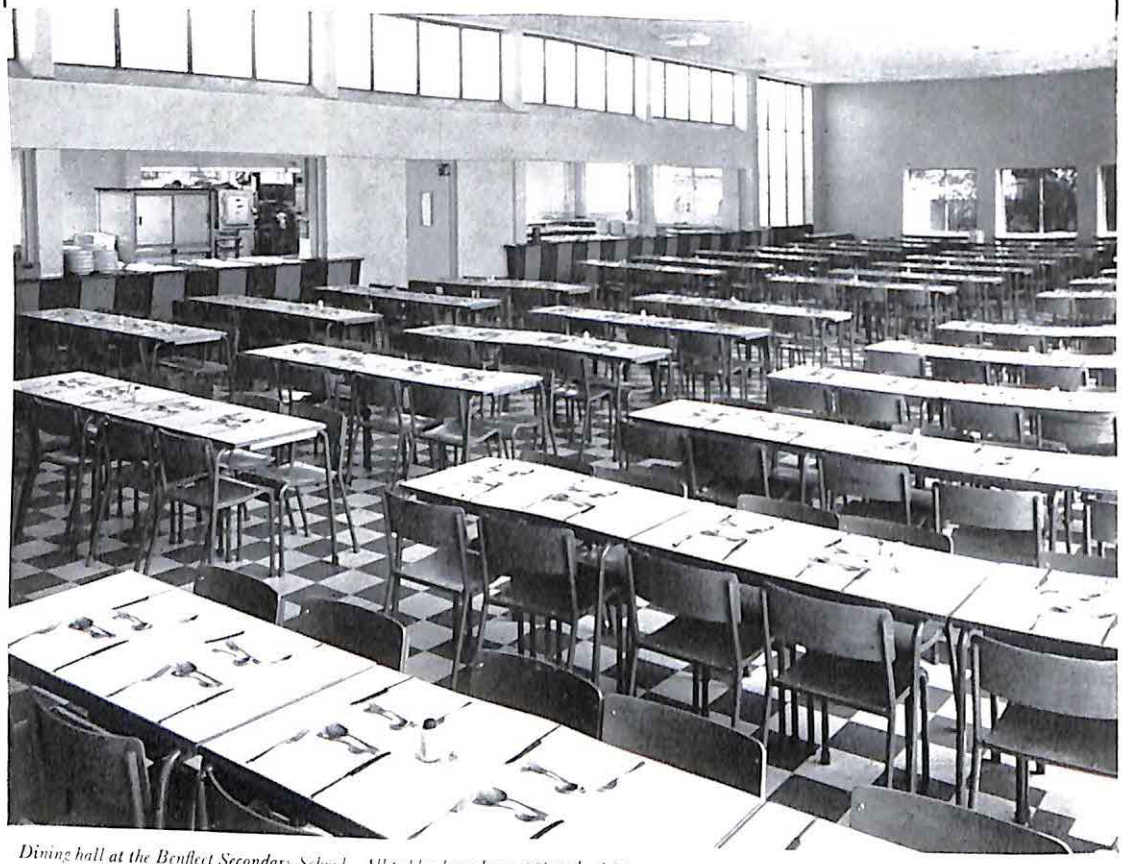

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SCHOOL & COLLEGE MANAGEMENT

Contents

Retirement — reconsidered by Dr. R. E. Smith in the light of recent events . . . 549

Verdict on the Education Act — C. L. Berry seeks an answer to the questions that are being asked about the Butler Act 551

A Merry Christmas around the Table — Some suggestions designed to make a Christmas Party easy catering 553

Rich Feeding — Professor V. H. Mottram considers another aspect of a Merry Christmas 557

What should you Know about Heating — is fully explained by a heating expert, concluding last month's article 559

Electricity or Gas — in the School Kitchen, Elizabeth Midgley weighs the pros and cons for the housekeepers' notebook 561

Forming the School Orchestra — by J. McKay Martin. The second of a series of articles on school music 562

Why No New Public Schools? — asks the Bursar 564

Running the School Printing Press — G. N. Goodban describes how he organised typography at the John Hampden School, New Barnet . 566

The Menace of Dry Rot James O'Neill tells how you can recognise an attack of Dry Rot and suggests some remedies and precautions against infection 570

Book Reviews include a criticism of "Dr. Arnold of Rugby" 574

How can **The Cost of School Books** be kept down to a reasonable level without handicapping the pupils or the teaching staff? E. O. Giffard, M.B.E., offers some suggestions 576

Inexpensive Novelties for the School Garden — by W. E. Shewell-Cooper, M.B.E., N.D.H., F.R.S.L. 579

Vol. 13 *No. 12* *December, 1953*

Many more children could stay away less

A GREAT MANY advances have been made in recent years in preventing those common ailments which often lead to epidemics in the school, and which cause so many children to miss their lessons.

Under the possibly crowded conditions of schools today it is only too easy for children to infect each other germs can be transferred by droplet infection, by dust and by contagion. In the first two ways come such infections as the common cold, influenza, mumps, whooping cough, scarlet fever, diphtheria and infantile paralysis (acute anterior poliomyelitis): in the third are included skin troubles such as erysipelas and impetigo. The surest way to reduce the risk of these diseases is to see that every place where children walk or play and even the air they breathe is kept as germ-free as possible.

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Dr. R. E. SMITH

considers the vital question of

RETIREMENT

in the light of the Report of the Advisory Committee, the Life of Dr. Thomas Arnold and the debates at Oxford and Cambridge

FOUR events justify us in considering again the retiring age. They are the publication of "The Report of the National Advisory Committee on the Employment of Older Men and Women," the issue of the new life of Doctor Thomas Arnold, and thirdly and fourthly, the debates by Oxford and Cambridge on whether the retiring age should be raised. It will be easier to deal with the last two events first. Oxford, although it has been called the city of lost causes, has on this occasion taken the initiative and has approved legislation to raise the retiring age of teaching and administrative staff to 67. This will leave out a small group of officers who at present will be required to retire at age 65, but this omission was caused by an oversight when drafting and an amendment will be made to include them. So once again Oxford is more liberal than Cambridge who will probably follow suit later in the same way as they followed Oxford's lead in admitting women to full rights in the University, after putting up a rather undignified fight against them in the early 20s. At Cambridge, according to *The Times*, the Council had maintained a severe impartiality, laconically directing the attention of the University to the subject and inviting the expressions of views. Arguments were produced and they may be summed up briefly, thus:—

Against Extension:

(*a*) It would accentuate the violence of competition among the younger men.

(*b*) It would prolong the teaching life of a few inadequate lecturers.

(*c*) No educational advantage would be secured by following the bad example of Oxford.

For Extension:

(*a*) Brilliant teachers would be retained and this would far outweigh the risk of prolonging the few inadequate lecturers.

(*b*) It would make pension schemes more adequate.

(*c*) Retired teachers should be given more generous employment.

(*d*) The present age of 65 tends to divert abler men into industry.

In judging the pros and cons of this problem it is always good to look back at the past and I was surprised that over 100 years ago Dr. Arnold had such clear views on this important question. He, of course, did not mind criticism and, in fact, invited it and one of his earliest points that he made was that he thought schoolmasters should, if possible, not go on for more than 15 years. Very early during his headmastership, from 1828-1842, in one of his councils, which now we call masters' meetings, he insisted upon every master resigning his curacy forthwith and devoting his entire energies to the school. He stressed that a higher salary—exceptionally high for those days—naturally called for improved standards. He urged them, now that they had more time available, to pay more attention to the psychology of boys, and to see that their standard of scholarship was always well above the level of the highest form. As tactfully as he could, he suggested that it might be unwise for any master to remain at the school for more than fifteen years lest he grow too set in his ways and so lose his vivacity. He himself had no intention of staying at Rugby beyond that period, he added, hastily.

He had made up his mind to retire himself when he had been there 15 years and just before his death he had been appointed professor of modern history at Oxford which would probably have helped him to continue providing for his family

of nine children although, by this time, Matthew was a scholar at Oxford and Thomas was also an undergraduate. In addition, he had paid premiums for an insurance policy of £5,000 but whether this was a fifteen-year endowment or not the book does not tell us. Most of Arnold's masters were clerics and many became parish priests and a few bishops. This avenue of advancement is, of course, open only to those few who are ordained.

Of the many who carried on the tradition of Thomas Arnold, none did it more nobly than his son, Matthew, whose great contribution to English, indeed, to global education was "secondary education." Father and son would have welcomed universal education, the extension of the school-leaving age, the determination of parents to give the best they can give to their children (perhaps with a wishful thought occasionally that education in the best sense begins at home) and, of course, they would have welcomed the new universities. All these extensions mean more teachers, and the demand can be lessened by increasing their teaching years.

Matthew Arnold is reported to have said, "Dear Doctor Arnold was not always infallible." It is therefore appropriate to consider his advice that a master's service should be limited to 15 years. He was prudent in insuring himself for £5,000 which was a goodly sum in 1842, but would produce £175 per annum if invested in the funds to-day provided always that one had enough money to pay the premiums and, of course, it would go nowhere to providing enough to retire on at the age of 47, the age at which Dr. Arnold contemplated retirement, although as we all know, he died the day before his 47th birthday. This is not at all to decry the excellent policy of paying premiums, for a long-term life insurance, like long-term insurance schemes, if started early, give accumulative bounties in later life.

Thomas Arnold would probably approve of the practice current to-day of being an ordinary master for approximately 15 years and then a housemaster for 15 years, and then reverting to an ordinary mastership for another ten years, shorn of such responsibility of being a house tutor in charge of football or cricket or the cadet corps. He had recognised from the start that there was no place for the elderly in his scheme of things; he wanted young and vigorous men, the best and only the best; now he could have them. Possibly he could get them to-day but that is far from saying that the average school and still less the less-than-average school could attract the right type of person. Idealists like Arnold could, of course, attract the ideal type of master, i.e.: "That belonging to a great and public institution, and standing in a a public and conspicuous situation, he should study things lovely and of good report; that is that he should be public-spirited, liberal and entering heartily into the interest, honour and general respectability and distinction of the society which he has joined; and that he should have sufficient vigour of mind and thirst for knowledge, to persist in adding to his own stores without neglecting the full improvement of those whom he is teaching." Those who can attain such ideals are to be congratulated.

The present

I do not feel competent to offer advice about the selection of schoolmasters, but I do feel strongly that the National Advisory Committee in the pamphlet are absolutely right when they state: "All men and women employed in industry, commerce, the professions or elsewhere, who can give effective service, either in their normal work or on any alternative work which their employers can make available, should be given the opportunity, without regard to age, to continue at work if they so wish." What I think is important is: Who is to be the judge of what is effective service?

Schools, of course, have made a great advance in giving schoolmasters their maximum opportunities while they are housemasters in their prime, and I can think of no other profession, with the possible exception of the law, where there is such an admirable arrangement for a man to exert himself during his prime and later to carry on doing good work but of a more routine nature with less calls on his time for extra duties. But we have really not yet solved Dr. Arnold's problem. If schoolmasters are to have a short teaching career, should some scheme be started whereby they can get outside experience? Should there be a rule that a master should not be recognised of seniority in the school that he is going to make his more or less permanent home until he is, say, 28? Is not a man who has been in industry, in the army on an extended commission or in the ranks, or a parish priest better material for making a good schoolmaster than he who has come straight from the university at, say, 23 or 24? This applies partly to those who go back to their old schools and may

(continued on page 558)

VERDICT ON THE EDUCATION ACT

Is the 1944 Education Act a failure? Can it be made to succeed?

C. L. BERRY

seeks an answer to these questions in the light of the situation to-day

TEN years ago the Government of the day issued as a White Paper the proposals for educational reform which were taking shape as the Butler Education Bill. It is not, perhaps, surprising that to-day many people are asking difficult and embarrassing questions about the Education Act, 1944, and subsequent amending measures.

Is the Education Act a failure? Can the Act be made to succeed? These are the questions which some people are asking. It can, of course, be pointed out that the Act has only been operative to any extent whatever for a little more than eight years and that some important provisions have not even yet been brought into operation at all. Such observations, however, do not satisfy everyone. There are those who think that more could have been achieved in eight years and that the Act, the whole Act, should now be working and working well.

The Butler Act, however, was not merely a consolidating measure, codifying earlier statutes, but a measure which in itself created much new education law, a greatly-altered administrative system and a programme of school building without precedent in the history of English education.

It may not unreasonably be claimed that such questions as are being asked cannot properly be answered much before 1970! There is, however, very little ground for expecting or hoping that the present educational system and statute law will be allowed to remain undisturbed for so long. Frequent legislative changes, with their inevitable consequences of upheaval, disorganisation and loss of continuity, are a delight to politicians. The idea of leaving public education alone for a generation so that it can work out its salvation within the provisions of the Butler Act is not welcome to those whose idea of social welfare involves constant and disruptive changes at the shortest possible intervals.

It is, nevertheless, possible to examine the Act in the light of the situation to-day and to see if the questions mentioned above are or are not unreasonable. Undoubtedly, the Butler Act was regarded as marking a very great advance in English educational history. Its title is "An Act to reform the law relating to Education in England and Wales." It is true to its title, in that it does reshape English educational law. It has made what have been described as "revolutionary changes" in the administrative machinery. It was assumed that its provisions would make similarly revolutionary changes in the character and conduct of the education for which this law and this administration exist.

The truth is that it has not made such changes and therein lies much of the popular misunderstanding and disappointment. It was "an Act to reform the *law* relating to education" and not the education which that law might govern. Even the past decade has seen welcome developments in education itself, but these have been at most helped rather than created by the Butler Act. The Butler Act affects the curriculum of the school in one respect only, although that is admittedly an important respect. It makes religious instruction compulsory in all schools for all children whose parents do not object to such teaching. It also makes it obligatory that every school day shall begin with the worship of Almighty God.

In the vast majority of schools this statutory provision called for no change in the school time-table. There were, however, some schools—more, perhaps, than has ever been admitted—where there was no religious instruction whatever before the Butler Act came into operation. Even to-day one may find grammar schools where religious instruction occupies one period a week only. This is, of course, far less than would be given to any other subject and suggests that compliance with

the bare letter of the law is regarded as enough. In this respect and in such schools the Act has not succeeded.

It is now the *duty* of every local education authority to contribute, so far as their powers extend, "towards the *spiritual, moral, mental* and *physical development of the community*" by securing that efficient education throughout the three recognised stages shall be available to meet the needs of their population. Probably no local education authority is satisfied that it is yet able to fulfil the tremendous and far-reaching duty thus laid upon it. One other subject should be mentioned because by implication the Act requires it, too. It is, in fact, the only subject for which the Ministry of Education publishes a syllabus. That is Physical Education.

In no school activity has there been greater and more beneficial change during the past 20 or 30 years. None of this progress can, however, be attributed to the Education Act, 1944. The former Board of Education issued a syllabus of physical training and in issuing new syllabuses the Ministry is simply following the precedent of its predecessor.

Section 1 of the Act prescribes the Minister's duty. It is "to promote the education of the people . . . and the progressive development of institutions devoted to that purpose, and to secure the effective execution by local education authorities . . . of the national policy for providing a varied and comprehensive educational policy in every area." Certainly another 20 years must pass before this duty can be fulfilled. Much has already been done to promote the "education of the people" in ways unknown before. As an example one may refer to the State Scholarships now awarded to "mature students."

Important educational research has been initiated which cannot produce immediate or even early results. On the debit side may be mentioned the strong opposition shown to the Spelling Reform Bill in spite of the high standing of the distinguished scholars and educationists who worked for its acceptance. The institutions devoted to education whose "progressive development" the Minister is bound to assist need not be maintained by the Government or a local education authority. Some such bodies are, in fact, already thus helped, but so far no work has had ministerial support which is not indirectly the responsibility in whole or in part of local authorities. Section 1 endows the Minister with very great and much-needed power.

The work of local education authorities is to be under her "control and guidance," and she must ensure that those authorities carry out the national policy effectively. It is, however, still assumed, to their general satisfaction, that the Minister and the authorities are "partners." As a result of the Man Power Committee's Reports and other similar representations the Minister's direction and control has been considerably relaxed. Time will show for how long and with what results authorities may fulfil or ignore what by statute are their obligations and duties.

Section 6 reformed the structure of local administration. Only county and county borough councils continued as local education authorities. Unfortunately, some of the authorities that were liquidated were among the most efficient, as well as being more populous and financially sounder than some that survived. Their new status as divisional executives or even as excepted districts was an illogical compromise that satisfied no one. On the other hand, the Act has given a new measure of self-government to the schools themselves, where ingenious attempts to circumvent its provisions regarding managing and governing bodies have not been allowed to succeed. Every maintained school must have its body of managers or governors, constituted under an instrument and must be conducted according to approved rules or articles. It is an incredible anomaly that neither the principal Act nor any amending Act ensures a similar measure of self-government to colleges and other institutions of further education.

Of the schools and their work little can be reported. The Act does not even purport to create new kinds of schools or to alter the character of the education given. The only gain to the schools resulting from its administrative provisions is the placing of all post-primary education under one code of regulations. Even here, however, one questions whether there should not be different codes and even different scales for different types of education.

Certainly one must deplore the widespread pretence that the Act "created" the secondary modern school. Where the Act has but partially succeeded is in extending the school life. The provisions relating to nursery education are being widely ignored. Very little, too, has come of the promised development of boarding education. It is true that the school-leaving age was raised to 15, with panic haste, but there is little or no prospect of extension to 16. The sections relating to the so-called "County

(continued on page 578)

A Merry Christmas

around the Table

FOOD is the most important feature of a children's Christmas Party. Of course, there will be games, fancy decorations, music and high jinks, but their eyes sparkle more when they see a table laden with good, attractive food which is the highlight of the festivities.

Every school will be having a Christmas Party whether it is a lunch-time feast or an afternoon treat. Crackers and table decorations, little fancy paper cake cases, pretty paper serviettes, pieces of holly, glittering coloured reflector balls are inexpensive to buy and the outlay is well worth while. Besides, for real economy some of these can be stored from year to year.

For children, remember always that it is the looks of party food which count most. Not that you can camouflage badly-cooked things, but it is a mistake to make food too rich. Remember, too, that cakes should be small; they will want to have one of every kind, so don't make them too filling, otherwise you will have discouraging left-overs, if not "overeaten" children.

Something savoury appeals to children as well as adults. Sandwiches are preferable to savoury pastries. Make them small and to avoid being too filling and to increase their attractiveness, leave them open. Spread slices of bread and butter with various sorts of fillings, cut them into neat pieces and decorate with parsley or cress, slices of tomato or pipe a little cream cheese. Here are some suggestions designed to make a Christmas Party easy catering.

Sandwich fillings

Honey and Toasted Oatmeal: Toast oatmeal in a slow oven, mix to a paste with honey, adding chopped date as required. Spread on brown bread and butter.

Mashed Banana and Chopped Nuts: This is a good mixture providing it is not done more than an hour before tea-time. If left longer, the banana loses much of its colour, texture and flavour.

Grated Apple and Celery: A very good good combination, crisp, refreshing and will appeal to children. A little grated cheese may be added.

Minced Tomato and Cheese with a suspicion of onion-juice. Do not forget the salt and pepper to flavour.

Liver Sausage, pounded very smooth and mixed with a little tomato to make it more moist. Garnish the sandwiches with tomato slices.

For very large parties, make a basic spread with a thick white sauce and grated cheese. Divide into several basins and flavour each lot individually with chopped celery, flaked smoked haddock, chopped egg and ham.

For fancy cakes there is no better way of preparing them for a large party than making large cakes and cutting into small pieces. Here are some ideas for changing the flavour and colours.

1. *Feather Tops:* Make up a plain slab from the usual sponge mixture. When cool, split it and fill it with butter cream and spread the top with white glacé icing. Colour some extra icing and pipe straight lines down the length of the cake. While the icing is still wet, draw a point of a knife across the stripes to form a "feather" design. Cut into small fingers when the icing is set.

2. *Chocolate Cake:* Make a slab of chocolate cake and cover the top with coffee glacé icing. Whilst still wet sprinkle chocolate vermicelli over the top. Cut into small diamond shapes when the icing is set.

3. *Coconut Finish:* Add coconut to the cake mixture and then cover the top with a pale green water icing and shower it with coconut. Cut into small fingers.

4. *Cherry and Almond Cake:* Cover the top of the almond cake with almond-flavoured icing, put halves of glacé cherries and a sprinkling of silver balls on the top. When the icing is set, cut into rounds with a cake cutter, taking a cherry as the centre-point of each.

Using Cake Crumbs: There will be outside edges and cut-off pieces of cake left. There are numerous ways in which these can be used for yet more attractive novelties.

Sweet Potatoes: Break the left-over cake into fine crumbs and to every pound add a cupful of chopped dates and some chopped nuts or cherries if available. Warm some apricot jam and add sufficient to the mixture to bind it. Place castor sugar and cocoa on a board and divide the mixture into small pieces. Roll into the cocoa mixture to form little balls. Put each into a paper case, adding a few bits of almonds to make the potatoes more realistic.

Small Cakes which will be easy to make and popular with children are these quick-cooking "Coconut Tom Thumbs." To make 40 use:—

¼ lb. coconut,
½ lb. chopped dates,
½ lb. cake crumbs,
¼ lb. chopped nuts,
1 can condensed sweetened milk.

Mix all the ingredients thoroughly together and place in small heaps on a well-greased tin. Bake in a moderately hot over for about 20 minutes. Remove from the tin when warm.

When there are no more than twenty or thirty children to organise at the table it is fun for them to have their places marked. Instead of writing on cards, here is a more amusing idea. Make the labels by piping their names on little cakes or biscuits.

Children's Party Place Biscuits (makes 20)

8 oz. margarine,
3 oz. castor sugar,
8 oz. plain flour,
4 oz. custard-powder,

NEW SHREDDER GRATER. Every cook will appreciate the handy - sized new "Speedi-work Minc-ette," a flat, easily washed and cleaned grater with two sections, one for coarse grating and the other for fine shredding. Made of polystyrene, it is rustless and there is no danger of scoring the skin or tearing the nails when using it.

White and pink water icing,
Pink marshmallows,
Green miniature candles (as used on birthday cakes).

Cream the margarine and sugar until light and fluffy and then work in the sifted flour and custard-powder. Work until smooth. Roll out on a floured board and cut into thin 3-inch rounds. Bake at about 350 deg. for 15 minutes. When cold ice the biscuits with white icing. Place a candle on each marshmallow and place them in the centre of the icing before it is dry. When dry pipe the children's names on the biscuits in pink.

For parties where there are too many children to make for them each a party name biscuit, the same recipe may be adapted to make five different assorted biscuits. Put the uncooked mixture into a potato forcing bag or a mechanical biscuit cutter, use the star nozzle and pipe little star biscuits on to a greased tray. Place a chocolate drop, cherry, sultana, nut or sprinkling of coconut on each and then bake.

Icing is needed in large quantities when catering for children's tea-parties; this quickly-made butter cream icing is economical and can be made on the mixing machine.

2 cans sweetened condensed milk,
8 oz. margarine,
Juice and rind of two lemons,
2 lb. icing sugar.

Cream the margarine, add the canned milk, grated lemon rind (yellow part only), add the lemon juice and half the sifted icing sugar. Mix well and add more icing sugar to mix as stiff as required.

Shivery Shakers: No children's party is complete without jellies and trifles. Ice-cream is another delight. Feature jellies because they cost little to make and they excite the appetites rather than satisfy hunger. To make them even more fun there are so many tricks easy with jellies, but take care not to spoil the pleasure of the texture by making the set too firm. Jelly Foam is made by whipping slightly set jelly vigorously before serving it. Serve it piled up in dishes, sprinkle with nuts, coconut or cut up pieces of fruit.

Marshmallow Floss is made by beating the jelly when set and then folding in cut-up marshmallows. To make Jelly Cubes, set different flavoured jellies in flat, shallow tins, cut up into cubes on wet grease-proof paper; serve several colours mixed.

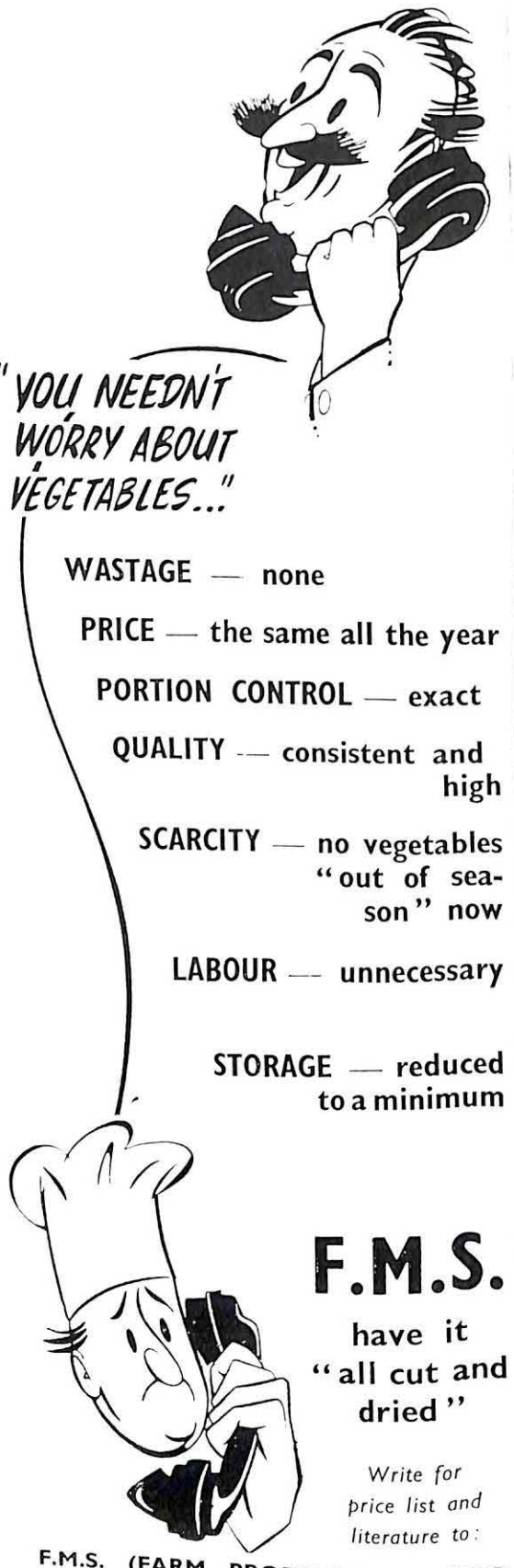
Trifles are suitable for young people's parties when these rules are strictly kept. Select good sponge cake or fine crumbs. Solid cake makes solid trifles. Add plenty of flavouring to the cake, either jam, sliced bananas, chopped canned fruits, nuts or chopped glacé cherries. Take care to soak the base completely in fruit juice or jelly. Do not pour on the custard until the base is well soaked or set with jelly, and make sure the custard is cool but still creamy in consistency. Decorate the top with a very thin layer of cream and trim lightly. Avoid the over-use of synthetic creams, which are sometimes good to look at but better consumed in small quantities.

If possible, make up trifles in small waxed cases, this way each person will have only a small helping and they look more attractive to eat when served this way.

Sweetmeats are always welcomed at parties and those that are not able to indulge at the handing-out time, will love

HYGIENIC PLASTIC FOOD COVERS.

The danger of not covering food is well realised but lack of facilities, rather than ignorance, is sometimes the excuse for exposing foods. To protect large dishes, Halex Ltd., the manufacturers of Bex plastics, are selling transparent covers in two shapes—round and rectangular—to fit over large plates and trays. If handled with reasonable care and washed in warm water with a little weekly wash detergent powder these covers retain their glass-like appearance and last indefinitely.



to put a few in their pockets. Now that sugar is plentiful it is cheaper to make many than to buy them. Here are two suggestions.

Nut Candy.

1 lb. brown sugar,
¼ pt. milk and water mixed,
1 oz. margarine,
4 oz. chopped dates,
1 teaspoon cocoa,
2 oz. chopped nuts,
1 small teaspoon vanilla essence,
2 drops almond essence.

Put the sugar and the liquid in a saucepan, heat slowly until the sugar is melted. Boil and then add the margarine. Stir and continue boiling until a little, dropped into a cup of cold water, forms a soft ball with the fingers. Take from the heat, cool until there is a film on the surface, then stir in the dates, cocoa, nuts and essences. Beat until the mixture thickens and pour into a greased tin. Leave until cold and cut into pieces.

Creme de Menthe Jellies.

2 oz. gelatine,
1 pt. water,
1 lb. sugar,
2 small teaspoons peppermint essence,
Green vegetable colouring,
Icing sugar,
Cornflour.

Dissolve the sugar in ¼ pint water and bring to the boil for 5 minutes. Meantime dissolve the gelatine in the other ¼ pint water and then add it to the boiling sugar. Continue boiling for another 5 minutes Add a few drops of green colouring and the essence, then pour into a bowl; cool slightly before whisking until the mixture is light and frothy. Pour into a shallow tin (brushed with a little glycerine if possible) and leave to set. Sprinkle a board with a mixture of equal parts icing sugar and cornflour, turn out the creme de menthe and cut into squares. Cover each cube with the cornflour and sugar mixture and place into sweet cups.

OUR FRONT COVER

"Dr. Arnold's Children at their hut near Fox How in the Lake District," from a sketch by Jane Arnold, the Doctor's eldest daughter.

We regret that we omitted to mention the subject of the cover photograph in our October issue. Readers will remember the picture of six girls on three horses. The photograph was taken of girls at St. Hilda's School, Bridgwater.

V. H. Mottram CONSIDERS ANOTHER ASPECT OF A MERRY CHRISTMAS—

RICH FEEDING

WITH Christmas in the offing one is tempted—putting aside the ethics of the practice during this Saturnalia—to ask what are the dietetics of rich feeding. And, of course, the question that arises at once is: What do you mean by rich feeding?

Do you mean expensive feeding, or eating indigestible food, or meals of many courses, or courses of food each of which exudes (in the words of E. M. Forster's novel, "Howard's End") creams or foods smothered in sauces?

It is an almost incurable habit of all times and all nations to assume that anything that is costly must be good and anything cheap must be nasty. This applies to food as much as to anything else. In biblical times we read: "A feast of fat things . . . full of marrow, of wines on the lees well refined"; in Roman times of dishes of nightingales' tongues; and in 1066 and all that of Norman barons demanding white bread as against the cheaper brown (or black) rye bread, which the serfs ate. It is just as true to-day. Who doesn't prefer a pineapple at 10s. to any equivalent weight of oranges at, say, 2s.? I make no bones about it—I do. And despite little pricks of conscience when I fall to temptation, I find myself quoting: "Dost thou think, because thou art virtuous, there shall be no more cakes and ale?"

But that is ethics and not dietetics.

The American pupil of the great Karl Voit, Graham Lusk, whose name I hold in great honour, and of whom I am a humble follower, once published a pamphlet called "The cost of high living." In it he pointed out, with innumerable illustrations, that nutritionally speaking, we pay extravagant prices for many foods, and that we can procure as good a diet at low cost as we nomally obtain at high. And Graham Lusk had no reason to preach economy—except strict scientific honesty—for was he not married to a Tiffany from the millionaire family which founded the world-renowned firm of jewellers of New York?

Well, let us see how this works out in English life. Crawford and Broadley of the well-known advertising firm founded by Sir William Crawford, investigated the diet of various grades of English society and found that even the wealthiest classes—those with cars and chauffeurs and sons and daughters at public schools and the older universities—did not get a diet which the nutritionist would unhesitatingly pass. And in the nineteen-twenties and thirties, when my family was in the making, I found that whereas the middle class budget for food allowed some 15s. to 17s. 6d. per head per week, I could manage to produce a diet which would meet the criticisms of the sternest dietitian at 12s. 6d. or even 10s. 6d.

So on the score of providing protein of good quality, of calories, of mineral elements and of vitamins at a reasonable cost there was nothing—or little—to be said for rich feeding! Anyone who cares can make out a list of the costs of food for protein, calories, mineral elements and vitamins by taking the food tables published by the Ministry of Food and doing a little simple arithmetic. Should anyone care to do so I suggest for proteins that they take chicken v. beef, salmon v. herrings, and soles or eggs v. milk and cheese. For calories try sugar or even butter v. apples or pears, and for vitamin C, grapes v. oranges or even strawberries. Such an investigator will get some shocks.

None the less, must we say that if we are to be dietetically minded there shall be no more cakes and ale? May there not be something to be said for a Christmas feast of good things? I am inclined to say that there is. A cheap, though perfectly sound diet is bound to be monotonous, and variety is the spice of life. That is one reason why I curse the meticulous following of standard recipes, particularly in institutions like schools. Monotony dulls the appetite, and good digestion waits on appetite.

I can make out a good case for a six-course meal on the grounds of appetite and digestion! Thus:

The *hors d'œuvre* awakens appetite and starts a flow of digestive juices.

The *soup* carries on the good work, for

the stock which is its basis provides a further stimulus to such a flow.

The *fish* provides quickly-digestible first-class protein for the gastric juices to get to work on.

The *meat* course, the *pièce de resistance*, gives something more substantial for those gastric juices to digest.

The *sweet* course fills the near end of the stomach where salivary digestion can go on unimpeded by the acid of the gastric juice.

The *savoury* further wakens a flow of "appetite juice"—see under *hors d'œuvre*.

The *dessert* adds little that needs digestion, but the pleasure it gives aids digestion, and in the case of pineapple, even adds a digestive ferment.

And I could even make out a case for the wines, coffee and liqueurs, though I don't want to press this, especially if considering school menus!

But so far I have said really little or nothing about what the doctor would call "rich foods" when advising, say, that they should not appear on the menu of a sick bay or in the diet of a dyspeptic or gouty patient.

What he means is: Foods with a good deal of fat in them; foods that are served with a "rich" (bother the word, it will keep on turning up) sauce; foods that overstimulate the appetite and tempt you to eat too much.

For example, duck and goose and salmon have fat in and amongst the fibres which supply the protein. The same is true of pork. Further, you cannot make a smooth sauce, either white or brown, which hasn't a good deal of fat in it. If you cut down the fat the sauce tastes like billsticker's paste and, indeed, I like to increase the amount of fat well above what the cookery books advise.

Now fat has two disadvantages in digestion—if not three. In the first place it actually depresses the flow of digestive juices in the stomach and therefore holds up digestion. A fat meal may stay in the stomach for as long as five hours. (For those with good digestions it gives a sense of satisfaction due, probably, to this fact.) Second: It gets, mechanically, in the way of the digestive juices and prevents them doing their task. Third: When it actually is digested and gets into the blood stream it may, if in excess, cause the production of what are called the acetone bodies. These are mildly poisonous substances and when present in any amount in the blood cause headache, malaise and sometimes vomiting—biliousness, in other words. The young are prone to this trouble, though they usually grow out of it. The sickness that often follows the Christmas dinner is due either to eating too much or to an inability to "get away" with the fat in it.

Take the ordinary Christmas dinner. If it's chicken or turkey, potatoes and Brussels sprouts there's no fat to speak of in that course unless you add bacon, sausages or ham. There may be some in the stuffing, depending on its nature. The plum pudding and mince-pies are certainly rich in fat, so people who can't get away with much fat had better have chicken or turkey and not goose or duck if they are going to follow with a second course of pudding or mince-pies. Of the other Christmas fare, only the nuts are fatty. There's everything to be said for the crystallised and dried fruit and the oranges, pineapples and bananas. They all contain sugar which enables the body to tackle any excess of fat.

On the whole, the nutritionist is not a spoilt-sport in the way of feasting. He knows that variety is "good for you"; that things you like you probably digest well. He only advises you not to eat too much and to keep a wary eye upon the amount of fat you take in your food at Christmas.

(continued from page 550)

indeed be handicapped by doing so. Probably schoolmasters now join the staff at a later age, most of them will have done National Service, and most of them go up to the university much later than formerly.

At the other end of a master's career is the question: How can schoolmasters get out of their profession? Does industry want the classic, the historian as well as the one with technical knowledge? Opportunities are limited. Modern industry is now employing many more apprentices from public schools than formerly and there are residential colleges for these. Some firms employ wardens whom they like to recruit from the public schools. I have never been convinced that teaching ability declines at 60. In fact I think there are some people who would say that, if a master had taken all his opportunities, his experience would far outweigh any lack of enthusiasm; in other words, I agree with the speaker at Oxford who said that brillant teachers should be retained. There is one point worthy of mention and that is that there are a few ex-headmasters who have given up their responsible positions which they had in their prime and who are now reverted to ordinary teachers, albeit in the higher forms, thus surely worthy of imitation.

Concluding

what you should know about HEATING

There is never a cut-and-dried solution to a heating problem, the choice depending on individual and varying factors. Here, in his concluding article, our heating expert deals concisely with the apparatus available and its specialised uses.

ALL boilers may be thermostatically controlled, but gas-fired boilers can be most accurately controlled and can be fitted with time-switching apparatus which will turn them on and off at predetermined hours.

The hot water produced by a central boiler can be used in several ways and can provide, therefore, a variety of different thermal conditions, each appropriate to a particular part of the school. There are four principal types of appliance used in conjunction with hot water boilers. Firstly, ordinary radiators, which are of course misnamed, since they emit something like 60 or 70 per cent of their heat by convection and only the remaining 40 or 30 per cent by radiation. In the past radiators have usually been made of cast iron, in various patterns, but pressed steel radiators, which are now about the same price as, or cheaper than, cast iron, are rapidly gaining popularity, on account of their lightness, which reduces installation costs, and their ductility, which means they are less likely to damage.

Secondly, convectors—mild steel "boxes" of about the same dimensions as a radiator, containing two or more gilled pipes, through which the hot water passes, an opening at the bottom, through which cool air enters, and a louvred opening near the top of the box, through which the warm air is ejected. The purpose of the louvres is to direct the flow of air horizontally and prevent it from too rapidly finding its way to the ceiling. I have no knowledge of convectors being used for school heating, but skirting convectors—a continuous convector about 12 in. high placed round the perimeter of a classroom like a skirting—have been successfully used.

Thirdly, "warm-air cabinets"—these are similar to convectors, except that they are larger and room height and that they contain an electrically-operated fan. This increases the speed at which the air passes over the gilled pipes and, hence, the rate at which heat is transferred from the pipes to the room, so that one cabinet will adequately heat a classroom. The fan also makes it possible for the intake to be at the top and the discharge at the bottom. This is a distinct advantage as it largely counteracts the tendency, with convection heating, of the warm air to accumulate at the ceiling. (This was proved recently by experiments carried out by the Building Research Station; it was found that the temperature gradient—the difference between the temperature at ceiling level and the temperature at floor level—was, with low-level output, less than half what it was with high-level output.)

This obviously saves fuel, since comfortable conditions can be achieved with a lower *average* air temperature. The low-level output saves fuel in another way; it is usual, at night and at week-ends to shut down solid fuel boilers so that the temperature of the water is reduced by about 40 deg. F.; ordinary radiators continue, of course, to emit heat which, unless the building is of the type which can retain this

heat, is wasted; so, too, do warm-air cabinets, even with the fan switched off. Cabinets with low-level output, however, emit virtually no heat when the fan is off.

For installations in existing schools, warm-air cabinets have the distinct advantage that pipework from the boiler is much simplified and, therefore, cheaper than pipework for a radiator system. Incidentally, in summer, when the boiler is not in use, the fan may be used alone to improve ventilation.

Fourthly, radiant panels—hot water can be passed through a "coil" of small-bore pipes embedded in a concrete floor. This is obviously a system which it would be impracticable to install in an existing building; in new buildings, however, it provides the best possible conditions of comfort, the radiant surface being large and at a comparatively low temperature. Moreover, the normal temperature gradient is reversed, with the floor warmest and the air at head level comparatively cool.

This system is particularly suitable for young children, who spend a good deal of their time on the floor, and also for assembly halls, where people may sit for fairly long periods, provided that, in this latter case, it is combined with some form of convection heating to heat the hall up quickly when required.

The snag with floor heating is that it is often extravagant in the use of fuel, particularly with solid-fuel boilers, which take longer to cool down to overnight temperature than gas.

Individual appliances

There are available individual versions of the warm-air cabinet which, instead of being connected to a central boiler, contain their own source of heat, in the form of a small furnace, operated either by solid fuel or by gas. A flue must, of course, be provided for each appliance, but quite a small one in the case of the gas-fired cabinets.

Electricity can be used to heat classrooms, by means of tubular heaters, oil-fired radiators or convectors; the first two of these appliances being the more popular, since they give part radiation and part convection. All three cost the same to run —a good deal more than solid-fuel appliances, but installation costs are low. Electrical appliances can, of course, be very accurately controlled and can be switched on and off instantaneously, which helps to reduce the consumption of electricity necessary to heat a given classroom for a given length of time. Electricity is the obvious choice for heating an existing building provided; on the basis of accurate estimates, running costs are not considered exorbitant.

The thermal storage system is an attempt to reduce further the running costs of electric heating; whether it succeeds in doing so, for schools at any rate, is at present much debated. Most electricity authorities are willing to sell electricity at off-peak periods, i.e., during the night, at something like half the normal price. With the thermal storage system this electricity is used either to heat water in a well-insulated storage tank (this water is then circulated through the radiators or warm-air cabinets during the day) or to heat up the fabric of the building, e.g., the floor may be heated by electric elements embedded in it, which then continuously radiates heat. This latter method is very economical in installation costs, but has not proved to effect any great saving in running costs, since the floor gives off more heat during the night than during the day.

The choice of heating appliances always depends on weighing up a number of factors—installation costs, fuel costs, ease of installation in existing premises, ease of control, the nature of the building itself, the length of time for which it is occupied, etc. The final choice should always be made with the assistance of a heating engineer but it is hoped that this article will at least help the reader to understand what the engineer is talking about.

(continued from page 561)

most is made of the various items of equipment, be used for mixing cakes, batter, sauces, chopping meat coarsely for moulds, mincing meat, grating vegetables, finely and coarsely.

But no amateur tampering with electrical equipment should be a strict rule and emphatically-worded warnings should be on view.

There is good re-conditioned equipment available but it is wise to discover whether any particular advice is necessary in case of repairs or any other difficulties. A guarantee of service over a period of time should be expected and given.

Local services differ in various localities and every particular should be verified and checked before final negotiations are made to purchase equipment which has had a previous owner. The makers of specialised goods may have "closed down" or changed their type of work.

ELECTRICITY OR GAS?

In the School Kitchen

HOUSEKEEPER'S NOTEBOOK

by

Elizabeth Midgley

ONE would be rash indeed to proclaim the superiority of gas over electricity (or vice versa) or announce that ovens heated by a particular type of fuel gave better results than any other medium.

But it is also maddening to enquirers to be compelled to generalise and begin or end advice with the frustrating phrase: "It all depends, etc."

There are many matters to consider when new equipment is being sought for any kitchen. Floor space has to be considered if present machinery is to be augmented. If expansion in more than one item has to be made it might be wiser to augment one piece and install another of greater capacity for a second purpose. In the first case, say, an oven, a different type might be chosen; a "mixing" machine, on the other hand, can be used for so many purposes that the greater capacity can be used without incurring extra expense in electricity and be of great help.

One imagines few would demur at the pronouncement that it is wiser, if not necessary, to provide more than one type of heating oven for the small kitchen, and variety in the size of equipment is an economy, too.

Equipment should be studied (before purchase) to ensure that the fullest value it offers is what you need, desire and can use. Some time ago a school was installing a wonderful array of steam-heated cupboards in a kitchen. There were to be no more cold dishes and plates to chill the appetising food! But what had not been understood by the engineer was that the steam which it was intended should heat the cupboards was switched over from the boiler-house after lunch (in winter) to provide hot water for showers and baths after winter games! It is essential that kitchen equipment should be chosen with a view to all types of needs and demands. The prep. school which serves lunch to a big proportion of day pupils needs ovens, etc., which can be economically used for smaller numbers at breakfast and for the evening meal. The winter and summer timetables demand different types of meals, often served at different times, too, and in winter, when the world in general is using gas or electricity. The oven which can be heated independently of local services of gas or electricity is an investment of incalculable value and in terms of money need not be expensive. Modern equipment is created and controlled so that small or large units can be heated and used as necessity demands. The skilled chef or cook trains his assistants or trainees to conserve heat, to plan a sequence of needs and prepare in advance his campaign. Suitable containers for the actual cooking are part of an economic service so that all heating space (inside and out) of the oven may be available.

Before deciding on equipment, study permanent needs and future possible ones. The major events of each term which exhilarate or ruffle the routine life of an institution can always be coped with when determination and initiative work together, but equipment which can be easily augmented when permanent needs demand it, is what one can consider wise investment. Before purchasing, visit some school, hospital, canteen, etc., where the firm has installed the type of machine you are interested in and see it in action. Visualise it when in action and manned by your own staff. A kitchen which depends on women workers cannot always handle containers filled with hot food which would present no trouble to stalwart men. A set of steaming chambers so tall that the topmost needs a stool to reach it can be dangerous!

When, however, the equipment is bought and installed, use it and explore its potentialities. A mixing machine can, if the

(continued on previous page)

Forming the School

The Second *of a new series of articles by* J. McKAY MARTIN. *Mr. McKay Martin, a former pupil of Vaughan Williams, taught at Sutton Valence and St. Pauls. He is now a Member of the Standing Conference of Music Committees.*

PERHAPS the word "orchestra" is a little too grand for quite often the school band has very humble beginnings. In some ways the humbler the beginning the better for then it grows into the life of the school naturally and without compulsion. Prize-giving, parents' day or other school events can provide an excuse to get children to perform together. Too often the school concert consists of solos by the most promising or proficient pupils and, as I see it, one of the chief functions of the school band is to break down the fetish of the star performer. We needs must admire and encourage personal skill when we meet it, but I hold strongly to the view that the prowess of the individual, especially in school days, should at times be subordinated to the wider good. We may all be a little tired of the team spirit approach but, nevertheless, particularly with young children, sharing an experience either of success or failure still remains an essential part of their education. To-day, the practice and enjoyment of the arts, music particularly, is becoming increasingly personal; the prerogative of the individual. It becomes so, sometimes, to no very worthy ends.

To young children, the toy band, the percussion band, offers possibilities. But it must be used with imagination. Through it at least one musical sense can be stimulated—the sense of rhythm. That is to say, body rhythm, the rhythm of movement as opposed to the rhythm of words and speech. The success of the percussion band depends less on the skill of the young performers than on the capacity of the teacher to hold the balance between allowing the children to indulge in their natural desire to make noise and the conscious effort to make that noise pleasant and bearable to other people. In this respect every group will vary. With some it will be a good thing to allow a little healthy letting off of steam. With others, restraints will have to be, surreptitiously perhaps, imposed right from the beginning. The choice of music, upon which I shall touch in more detail in a later article, is of great importance. In general terms, short pieces in varied rhythms are better than long, for variety is the spice which leavens the labours of the very young. And there is no reason that I can see why the teacher should not arrange music from all kinds of sources to meet the needs and capacities of the players.

Turning to the next group the older children who have learnt to play, *or are learning* to play an instrument, what can we do for them? First of all, let us take it as an axiom that all who wish, the proficient and the not-so-proficient, are eligible to join the band. Generally speaking, this is an age when children will do the most incredible things on their own, but develop a tremendous shyness about performing with or in front of others, especially their own kind. And it is almost worse than useless to try and force an issue. If one does, nine times out of ten the child wins. Some of this problem can be met by instrumental class teaching. A capable and sympathetic teacher can achieve excellent results. If regular class teaching is not possible, at least at definite times, all those learning a particular instrument should have a joint lesson, or a period when, quite apart from forming a band as such, they play together. If they have formed the habit of joint performance, the school play, the school panto-

Orchestra

mime, the carol service and so on can be made an occasion when a group play together even if they only play over the first phrases of music that is to be sung.

And now, perhaps, we had better turn to the period when we talk seriously about the "school orchestra." The late Rev. H. R. Haweis, a Victorian clergyman, wrote in his book, "Music and Morals," that any four instruments blown (and I presume scraped) together constitute a band. This may be a rough-and-ready definition and one susceptible of misinterpretation, yet it has a special significance when applied to the school orchestra. More often than not, the orchestra will be classed as a voluntary activity and most of the practice and rehearsing will, therefore, have to take place out of school teaching hours. It may, therefore, at the beginning, rely on a combination of any four, or even three, instruments, and I most strongly urge that even if that is the case, a start should be made. We can cut the grand name of orchestra at the beginning, but boys, particularly, are creatures of habit and will attach themselves to something that is taking practical shape when they will not be induced to support an idea. Only the person on the spot can judge whether the beginnings should be comparatively insignificant or tuned to a louder and more spectacular note. On the whole, personally, I am for the quiet beginning. And here may I make a plea for the recorder? It is an instrument easily learnt, it will combine with practically any known combination, it can take the place of woodwind and in twos and threes play the role of supporting brass if necessary. Recorders need not be confined to playing folk tunes or music of a particular period, although that is what they are best at. A makeshift, you say? Well, most school orchestras are and even if we rise to great heights on state occasions, the principle that the orchestra exists to encourage the players should always take precedence over any other. I have heard a movement of a Haydn Symphony played with recorders "filling in" some of the wind parts and the result was by no means unsatisfactory. If you say "dare we 'mutilate' Haydn or any other composer so?" I would reply that quite frequently he himself had to use such instruments as were available—and he was lucky at a nobleman's court—and, furthermore, is it not better that the music should be known, not merely by the lazy method of listening to recordings, however splendid, but by attempts at performance? I have yet to meet one instance where subsequent aesthetic judgment has been impaired because the person concerned once played a flute part on a recorder. Of course, get the right instruments if possible, and the playing of a wind instrument is very good for the adolescent boy, but the ability to use the material at one's disposal artistically is surely more worthy of commendation than doing nothing because all the equipment is not to hand.

But there is one member of the orchestra that should be chosen with care. It is the pianist, for his or her job will entail far more than being able to play reasonably well or even being a good sight reader, though this is essential. To the pianist will fall the job of filling in the gaps, particularly at rehearsal, of supplying the three or four bars when strings and such other instruments as are available are silent, of supporting the bass line and of steadying the rhythm. A skilful pianist can do a very great deal to jockey the players along and keep things going when individual instruments falter.

There is frequently a waiting list of those willing to play the drums or other percussive instruments. And their claims must not be overlooked. Indeed, the playing of a percussion instrument—the cymbals or triangle even—can be splendid training not only in developing a good sense of rhythm, but in following the music through many bars of enforced silence. Choirs are often told to "sing through the rests," that their job begins as soon as the first introductory notes are sounded. It is even more true of percussion players and there is no better training in the art of concentrated listening than to play in the percussion department of the orchestra. It is sometimes worth writing in an occasional drum tap to keep up the interest and enthusiasm of the young tympanist.

Then there is the boy (or girl) who doesn't play an instrument but vaguely likes music, or even, perhaps, doesn't like it but hangs about waiting for a friend who does play. There are quite a number of jobs they can be asked to do from collecting and distributing the music to copying parts. (One of the best school copyists I ever

(*continued on page 569*)

THE BURSAR asks

WHY NO NEW PUBLIC SCHOOLS?

SOMEONE said to me the other day: "If public school education is desirable, why have no new ones come into being?" I liked the question and started to think about it.

Think about the country's public schools and the famous names come crowding in and it must seem that no new ones ever arise. Some of these great schools take over a thousand pupils and others must have expanded over the years. There is much to be said in favour of enlarging capacity rather than try to found new traditions. Although new foundations do not spring up, the older ones have undoubtedly met much of the increasing demand.

And increasing demand there certainly seems to be in spite of rising fees. Wherever you go and whoever you ask in the public school world the answer is: "We're as full as we can be and a waiting list as long as your arm." It is obvious that in a country such as this such a trend would follow the expansion of State education. We are conscious that much of our greatness has come up through such a system, and why shouldn't we back it to do it again in the years to come? Some say State education turns 'em out all to pattern, and some say exactly the same about the public school product.

By and large this product is from a boarding-school and the other from a day school although most public schools have a number of day scholars and just a few are entirely day pupils. The public school tradition might be said to be a boarding-school tradition, yet by no means are all boarding-schools looked upon as public schools. All this is leading up to the interesting question: Just what is a public school, to say nothing about what exactly is public school education, and why is it so desirable? I don't wish to lose sight of the original question and shall return to it by and by, when we may discover it is not founded upon fact.

To arrive at a conclusion we must first examine this public school business. There seems to be no legal definition but it is accepted that to be a public school the head must be a member of the Headmasters' Conference. To be a member of this body it is necessary to achieve certain standards within the educational world, but mention of these does not help us much for they must vary between school and school. Membership is by invitation and there must be minimum requirements before this is issued, though the suggestion of a mimimum argues some being much more so than than others! The writer is not trying to poke fun as he went to one of the lesser ones himself and enjoyed every moment.

This so-called minor public school would to-day resent the term, being major in all but famous name—another fifty years or so for that. In the early nineteen-twenties this boys' secondary boarding-school was climbing out of the slough of despond directed by a man who proved to be one of the great headmasters of his time. Under its first head it had flourished as a school for the sons of business men, but the following leader allowed the numbers to fall and the school come to the danger point. When I arrived it was flourishing again under new management and for all this added handicap, momentum took it over the dividing line and I left it called a public school.

I would say that between the wars there must have been a considerable increase in the numbers of public schools but through just this kind of grading-up process and not by new foundation. State schools are manufactured every year, so one can speak in terms of so many new State schools but as public schools don't come that way complete with ready-to-wear tradition it appears there never are any new ones.

I spoke about the arrival of my own and many others between the wars but the question is posed to-day in these post-war years. In the later thirties I became the bursar, the first one, of a boys' secondary school. This, too, had been through a bad patch and was striving to climb on to safer ground. Came this last war and evacuation coupled with loss of identity and back it went over the hard-won ground, not quite as in the game of snakes and ladders, for the head remained steadfast and hopeful. To-day that school has quadrupled in size, and as sound a proposition as you would wish to see has also passed into public school history. This is one case only and there must be a number of others. This may be no increase in the number of schools but it is one in the total of public schools. It does begin to look as though our question is not borne out by the facts.

Back between the wars again a brilliant man without degree became the head of a difficult boys' day school in one of our famous cities. This school served a poor district, the lads were toughs, and the parents tougher. My friend settled into the saddle quietly strong and determined not to be thrown by governors, parents or young hooligans. Although, I believe, he had never been to a public school himself he made up his mind to model this rare school of his along public school lines. He evidently did consider public school education desirable and although it was impossible, perhaps, to be accepted officially as a public school, it appeared almost as though it was one in everything but name.

I am aware this is a hopelessly extreme case to quote but the success of the school on its new lines was recognised at last and it became a model for others. It was a proud moment when his XV trotted on to the field to play off the final for the district "rugger" cup against a public school side. Rough lads from slum conditions, many of 'em rubbing equally "scrummy" shoulders with the backbone of our country—sounds a bit mixed and impossible but perhaps you follow what I mean.

There must, therefore, be many schools, both boarding and day, who follow the public school tradition as nearly as possible and I am wondering whether they should be counted. Consider the question: "Why no new public schools when this form of education is desirable?" and when the form of education is practised we may be allowed to add this school into the list of those following such tradition.

The conclusion I would draw is that there are new public schools being added to the lists year by year upon invitation from the Headmasters' Conference but that these schools are not new schools. Secondly, there are existing schools of every shape and pattern who join the ranks of those teaching along public school lines. A third point answers the questioner's observation that any new public school would rapidly fill and that is, that to meet the increased demand the older public schools have added to their buildings steadily over the years and the numbers they have been able to take must be the equivalent of many new schools.

The financial side of this question would confirm the assumption that the facts supported my questioner. These post-war years have hardly been the time to build new buildings or buy large property suitable for a school. The established are finding it difficult to make ends meet although they are full.

Just supposing you could bring a brand-new school into being with the object of catering for parents who are looking for a good public school, you would need considerable money to carry you through the first twenty years. To attract such people your staff would have to have the best degrees, your equipment and facilities for higher level teaching would have to be adequate, and your sports and P.T. would have to be beyond reproach, both for coaching and display. All very costly indeed.

How could you address prospective parents? In the first place you would not be a public school—you could scarcely be invited to join the august assembly until you had some pupils—and that you were going to run it along public school lines would have a limited appeal. Parents looking for a public school have in their minds one steeped in tradition and that takes time with a capital T. If they can't afford the top-notch place they will turn to one of our lesser public schools, and if they must drop lower, one on the border-line like my old school used to be, and it may take forty years to reach the border.

A completely new foundation is a risky gamble for a deep purse and it does not surprise me to hear there are no new public schools starting up, even if that were possible. This lack does not indicate, therefore, a falling-off in the desire of the people for public school education, but shows such schools do not arise thus.

A public school means a mature one, and in man maturity spells fifty, and I guess that goes for schools, too. There's no short cut to the heights.

Running the School Printing Press

at the JOHN HAMPDEN SCHOOL, NEW BARNET

Mr. G. N. GOODBAN *runs a typography club that prints anything from the gay Christmas cards on the opposite page, to invitations to the new Domestic Science Bungalow.*

THERE is little doubt that the introduction of typography in school would meet with enthusiasm from most senior boys and in a mixed school, perhaps even from some girls. Whether introduced as a club operating after school or as part of the craft syllabus depends on the organisation of the school. Whatever the method, much can be gained educationally.

It is important that the purpose of any scheme of typography should be clear. Certainly it should not be to train pupils for the printing trade and it would be well to make this clear to them at the start. This task belongs rather to the technical school or to the trade itself. In any event it is not easy to gain entry into the printing trade but for all that, any pupil who shows real ability and enthusiasm should not be discouraged entirely.

All children, however, are vitally concerned with the printed word and will continue to be after leaving school. In books, papers, posters, advertisements, everywhere the printed word is around us. And yet how many are aware of anything but the factual content of what they read? There is, or should be, in any piece of printing, more to appreciate than the meaning the words convey. The form and arrangement of the print, its design and layout, with illustration or not, can give pleasure just like any other beautiful piece of craftwork if only one can be taught to see.

This is no easy task and only by the practice of typography can any progress be made in encouraging an appreciation of both the letter form and of layout. This should be the underlying purpose if not the apparent immediate one of the teaching of typography.

Children profit considerably from seeing the work of others. I would recommend the collection of examples of lettering and layout which show a high standard of workmanship, including as much as possible by children and students. I have received much inspiration from the latter but would emphasise the use of children's work as this encourages them to feel that they are capable of similar work. The examples should include beautifully-printed and illustrated books and various forms of advertising matter.

After a little practice in typesetting the children should attempt their own layouts, using good type faces, illustrations and sometimes colour, preferably for some specific purpose. Using the press for the mass production of stock lists, duty list, clubs' cards, dance tickets, addressed writing-paper, etc., is not recommended. These usually give little scope for imagination and have little artistic merit. Much more can be gained from printing magazine and book covers or leaflets and cards announcing exhibitions, open days, plays and concerts. Combined with lino-cuts they can be much more original and attractive, particularly when executed in colour. To these may be added the printing of verse or prose illustrated with lino-cuts or wood-

cuts if the latter are within the capabilities of the children concerned. It may be worth while to consider allowing a child, not normally engaged in the typography class, but particularly good at written English, to set up and illustrate an example of work himself and then print it. To see one's own words in print is fitting reward and will surely add zest to the English lesson. Or it may be more expedient for the processes of writing, illustrating, typesetting and printing to be each carried out by a different child, thus providing a valuable lesson in team-work. Practice in single exercises can quickly lead to simple book production, but copy should be limited or the task may prove overwhelming even for a team, for it should be a team job. First attempts might emphasise illustration and minimise the typesetting. Remember, time must be found for bookbinding, also, here.

I am a firm believer that art and craft in schools should make its presence felt beyond the rooms set aside for its practice, encouraging good taste and good design in all things. One often sees on classroom walls and notice-boards badly-executed lettering and layout, or one might say no layout at all. The essential requirement of a notice is that it should be noticed and surely the prospects of this are much greater if it is well carried out in simple, attractive lettering which is attractively presented. It is difficult for children to reach the necessary standard in hand printing. Thus, when headings and notices are to be permanent or semi-permanent it is worth while to print them on the press in the most attractive manner possible. Several prints of each can be made and replacement of any which become dirty or torn is a simple matter. Combine this with an imaginative use of colour and shape and the school or class notice-board can become a living thing rather than a dead-letter office. For this, as large a press as possible is needed. Better still, a proofing press of the roller type provides larger notices and is quicker to use. It can also be used to give proofs to point out errors when setting matter to be printed on the other press.

I have also made use of the press for printing lino-cuts and the results are superior to those gained by any other method, though this in itself is not a justification for buying a press. It has always been a practice in our school to provide at Christmas a post-box through which pupils can send greetings cards to fellow pupils. Since the introduction of the press we have always designed and printed our own cards. Cost of material needed has been covered by a small charge and any profit made went towards the purchase of further equipment. Not much is involved in the layout of type but interest in design for lino-cutting was stimulated, and, we hope, a more critical attitude towards the design of the average Christmas card. This prompts me to offer a warning. We have at all times studiously avoided printing anything unconnected with school or school affairs. It is essential not to trespass on ground covered by the printing trade and any teacher of typography would be wise to refuse any commission which should rightly be offered to a printer.

Organisation of both the children themselves and of the equipment needs careful planning. Bad management and disorder will result in chaos and much wasted time and labour. For this reason, as well as cost, it may be advisable to start in a simple way, with two or three pupils only. This will ensure that the teacher can give the assistance and supervision needed. Too many children involved in the early stages would probably mean idle hands, and idle hands which become curious can soon create unnecessary work. Steady progress is best and when this small group is sufficiently familiar and well trained to proceed with minimum supervision, each individual can be given a new partner and so aid his training. If this idea is repeated the number of children involved need only be limited by the amount of equipment, space and time available and what the teacher considers a manageable number. But do avoid having too many jobs on hand using the same type.

It is essential that children should be obliged to return all equipment to its proper place and not leave it around longer than necessary. In the early stages it is better for the teacher to "dis," that is, return unwanted type, to the case as type returned to the wrong case or case section by careless or inexperienced pupils takes much time to re-sort or leads to errors in future setting.

A useful method of teaching choice of type and spacing for such things as handbills or title pages is to print alternatives in the various type faces and sizes considered suitable, cut them out in lines or groups of lines and arrange them by hand to find the best layout.

The equipment necessary is not cheap and it is wise to ensure that it can be well and enthusiastically used before embarking on such a project. If the would-be teacher has little knowledge of the subject he would gain by seeking the advice of someone of considerable experience with regard to choice of equipment, and preferably from

someone whose own practice shows real taste and artistic ability. Much of the ordinary run of printing lacks these qualities. Second-hand equipment may save on outlay but may land the purchaser with a lot of equipment and type he may never use. Nevertheless, it is worth considering the purchase of a second-hand press or a rebuilt one if funds will not allow a new one. Again I would stress that it is best to buy as big a press as possible, say 11 in. x 8 in. platen, and not a small one, or you may find in a short time that it will not do the jobs you want it to. In any event, deal with a reputable firm. Purchase a press on which you can rely because no matter how well your type is set up, if the press doesn't do its job properly the results will be unsatisfactory. The recognised double case is advised and not the cheaper variety in which type is arranged in alphabetical order. Double cases can be obtained second-hand, anyway. "Leads," wooden "reglets" and "furniture" used for spacing are best bought ready cut to length, it being worth the extra cost to obtain accuracy. Good quality composing sticks, a good galley and imposing surface are essential. For the latter a piece of marble will do but the surface must be good to ensure that the type is "on its feet" before transfer to the press. Nothing is more annoying than to find the first print is not satisfactory because lines weren't "justified" properly in the composing stick or the type was "off its feet," for this really means going through the work again.

Type should be new and may include one or two well-chosen ornaments though much decoration can be done in lino. Remember, simplicity is the keynote. Twelve point is most suitable for general work. Add some ten, eighteen, twenty-four and thirty point and there is a good basis on which to build. Larger types including titling faces can be added as funds permit. It is best to restrict the choice of type faces to two or three well-designed ones in classical style and avoid fancy, "swash" types. Using lino for illustration will demand the use of a type slightly heavier than average and Times Roman is very suitable. Some small capitals should be included. Perpetua Ordinary and Titling, Bodoni Bold Italic and perhaps a little Gill Sans will give ample scope to start. If larger type is required for special lines, odd letters may be bought or it may be possible to cut an alphabet of larger size in lino.

I have made no mention of visits to newspaper offices, printing works or places where allied processes are carried on but, the possibilities will be obvious.

Finally, readers of this article will note that I have used the term typography rather than printing. The latter word is too closely connected with the hand-drawing of letters and also really covers the actual process of obtaining an impression of type. Typography is defined by Stanley Morison as "the craft of rightly disposing printing material in accordance with specific purpose, of so arranging the letters, distributing the space and controlling the type as to aid to the maximum the readers' comprehension of the text." This should be your aim.

(continued from page 563)

knew was a boy with very little musical talent but who had a passion for drawing and design. His copying was almost of professional standard.) The comprehensive title of "librarian" can include a number of jobs, all of which are important and carry a sense of responsibility, and it is a good thing if they are performed by a non-playing member of the orchestra.

A last word about the very beginnings and I refer here to the senior schools where the word "orchestra" need neither be a misnomer nor an exaggeration. Only knowledge of every individual circumstance could make it possible to suggest a universally applicable line of approach. Some may be all agog at the idea of joining a band, others may stand aloof; in some schools the material may be good, in others indifferent. But if we take the most difficult situation when a direct announcement would most probably fail to attract members, I would never hesitate to start without any preliminary flourish and get one or two pupils to play together at fairly frequent intervals. That is what I know happened at one school and even allowing for the change of schoolboy population, at the end of a year there was the nucleus of a small if unevenly-balanced band. And, however unbalanced it was, once the habit of playing together was formed, it was never allowed to drop. For good or ill, it became a recognised thing that every now and then there was concerted practice. Habit passed into tradition and meetings became more regular. It required the patience of Job on the part of the teacher-conductor, but there came a day when a group provided very simple incidental music to the school play. In essence, it was musical even if the performance, technically speaking, left something to be desired. From that day the school had an orchestra; it has one still and, as far as I know, it is flourishing.

THE MENACE OF DRY ROT

JAMES O'NEILL describes how to recognise dry rot and suggests some precautions and remedies

* * *

AN enormous increase in dry rot attacks has taken place since the war, and it has been estimated that this disease alone costs the country about £20 million per annum, as opposed to £1 million in 1939. Even accepting the rise in the costs of repair and the value of irreparable buildings over the period, the increased incidence of the attacks is alarming. The estimated loss is supported by the fact that one property-owning company in London has spent £30,000 a year on dry rot elimination for the past five years and is continuing to do so. What is still more serious is that every case is a dangerous source of infection to other buildings. The collapse of a floor or roof may be the first indication that anything is wrong, and the consequent danger to young pupils is very real. It is for this reason that it is essential that those in charge of educational establishments, where large-scale repairs can be both expensive and inconvenient, should be able to recognise a dry rot attack and know what measures to adopt to prevent it becoming extensive.

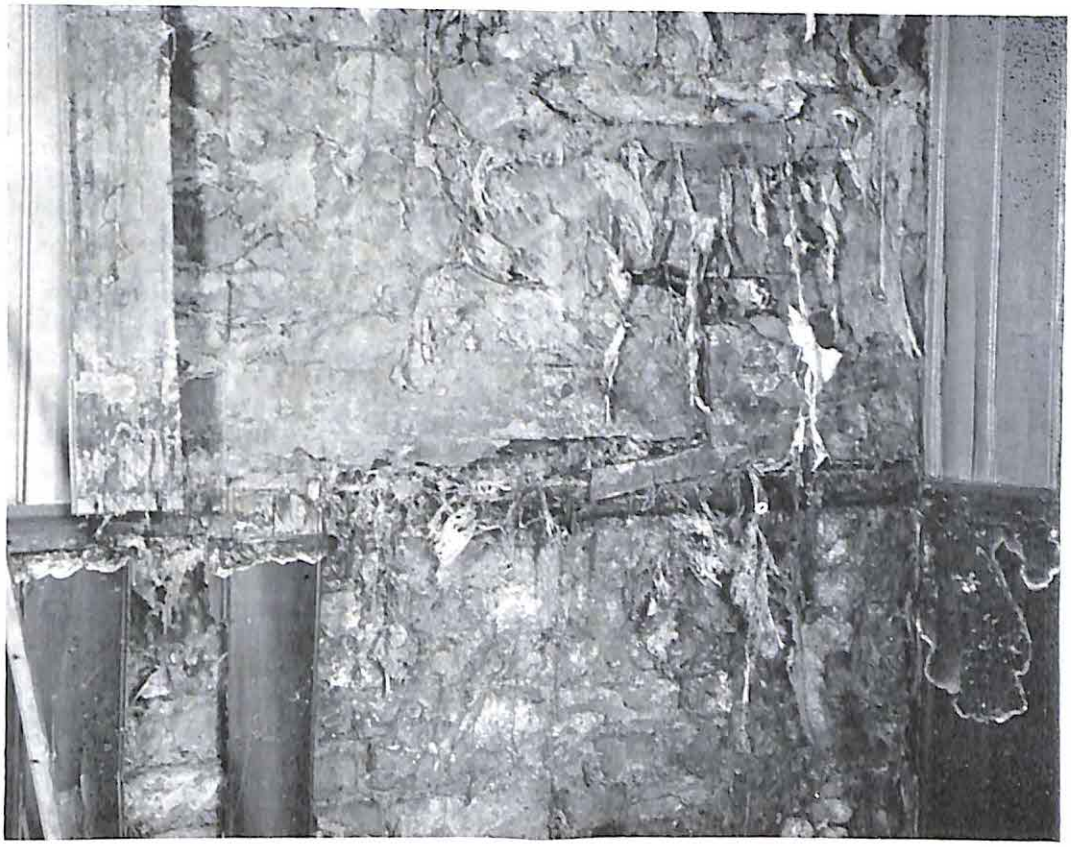
Locating the trouble

The term "dry rot" is used to describe the decay of timber in buildings caused by the attack of various fungi which draw the moisture and strength from the wood and eventually leave it in a dry, friable, powdery condition. The name is misleading as the trouble is invariably due to the timber being subjected to constantly damp conditions.

By far the most important of the wood-rotting fungi is *Merulius Lacrymans*. This usually occurs in damp rather than wet conditions, and the appearance of the decayed wood depends upon the stage of attack. When *Merulius* is growing actively, it produces white, fluffy, cotton-wool-like masses and spreads over the timber like a silky white sheet. Once it takes hold, it starts to spread by putting out thin root-like strands varying in thickness from that of fine twine to that of a thick pencil. These contain tubes which act as passages for the water so necessary to the fungus's existence. In their search for more wood they are capable of penetrating brickwork and passing over such inert materials as stone and metal. Eventually the fungus grows large fruiting bodies shaped like pancakes. They are tough and fleshy and soon become a bright rusty red in colour, with margins of light grey. Their surfaces produce minute reddish-brown spores which are the seeds of the fungus and will blow about like dust. Any one of them settling on damp wood can start to grow and attack it. Wood thoroughly decayed by *Merulius* becomes light in weight and will crumble readily under one's fingers. It shrinks and splits up into cubical pieces with deep cross cracking, looking like charred wood except for its dull red colour.

Another fungus commonly found is *Coniophora Cerebella* which only attacks wood which is definitely wet. It has slender strands which are yellowish at first but soon darken to deep brown or black. Its fruiting bodies have thin, olive-green skins which later become a dull brown. This fungus causes the wood to darken considerably and to split with longitudinal cracks. It often causes internal rotting in floorboards or joists and is generally found in very damp situations where there has been a leakage of water, such as a cellar.

Since dry rot usually starts behind woodwork, under a floor, or where timber is in contact with damp brickwork, it often remains concealed from view. When inspecting a building for infection, examine the panelling, skirting and window linings for irregularities or waviness in their surfaces and test the suspicious areas with a knife or sharp-pointed tool. If the wood is decayed, the point will penetrate without much pressure, and will be easily withdrawn. In the case of sound wood, its fibres grip the point of the tool and will



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The removal of the panelling from this wall has exposed the ravages of dry rot. The disused mansion from which this example was taken was bought at a very reduced price, but was found subsequently to be so riddled by dry rot as to render its reinstatement uneconomic.

offer resistance. When testing large beams for internal decay, drill holes at intervals and remove the shavings for inspection.

Precautions against infection

The good design of a building, and its construction with well-seasoned timber and effective ventilation, can eliminate the possibility of dry rot almost completely. Nevertheless, many educational establishments have to operate under less ideal conditions, and other measures have consequently to be taken. The most urgent method of combating the disease is to ensure that no damp spot is left anywhere. Common causes of attack are leaky joints behind cased-in baths and sanitary fittings which keep the floor damp. Damp-proof courses, which consist of a layer of tiles or other impervious material running between the brick courses of outside walls at a height of about six inches from the ground must be kept in an efficient manner. Care should be taken that flower-beds or rockeries are not raised against walls above this course, and that air-bricks are not choked or buried. The latter should provide at least 1½ square inches of clear ventilating area per foot run of external wall. Other sources of dampness are missing weather-boards, damaged roofs, choked or faulty guttering, downpipes and gullies, dislodged pointing and cracks in the walls.

Fungoid spores are as minute as particles of dust and may drift in through windows or air vents, or be carried in by vermin or on the soles of one's shoes. Sometimes the infection is brought in with infected timber intended for ordinary repairs or firewood. Coal can act as a carrier, and infection can arise from fragments of rotton wood in the soil through which the fungus can grow. Often timber decays under very moist conditions and there is no visible growth on the surface. This frequently occurs when the wood is exposed to persistently moist conditions, as in a post embedded in ground. In such cases, the rot is invariably caused by fungal attack though the strands may only be visible under a microscope. It is advisable to apply preservative whenever there is a

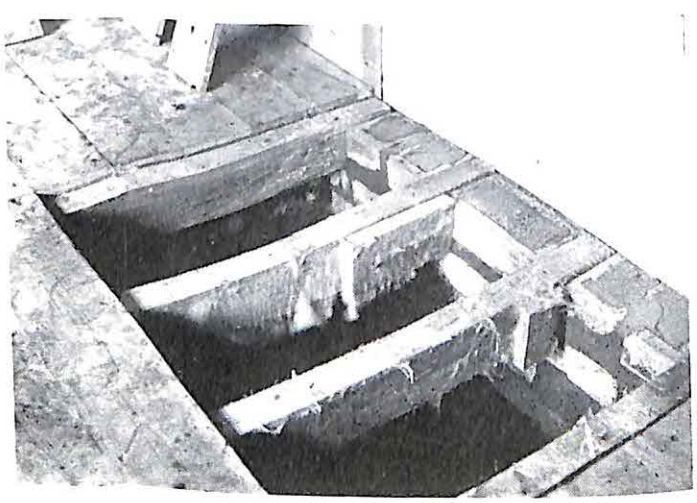
risk of timber becoming even temporarily damp. Above all, never paint damp wood as this will inhibit its drying out.

Remedial methods

In the event of an attack of dry rot, the remedial treatment must be drastic in order to prevent further outbreaks of the trouble. The cause of the dampness must be cured, and every trace of fungus removed. All timber which shows signs of infection should be taken out, cutting away into the sound wood for a further distance of 12 to 18 inches, as this may contain invisible strands. The infected wood should be burnt immediately upon removal and not saved for firewood. If the infected timber has been in contact with walls and brickwork, these should be sterilised by means of a blow-lamp flame played steadily over the surfaces until they are too hot to touch. This treatment is followed by the application of an antiseptic, such as 4 per cent sodium fluoride solution. New timber used for replacement must be treated with preservative, at any rate on the surfaces not exposed to the air in the room, but as far as possible timber should never be built into brickwork previously infected with dry rot. When fungus strands have penetrated through brickwork it is almost impossible to kill them by superficial treatment, and timber which has been in contact should be impregnated with preservative under pressure. This treatment should also be used if there is a risk of dampness persisting in the wall. When the dampness has been cured and the walls are likely to remain dry, it is usually sufficient to give two full brush-coats of preservative to the timber.

There are several good preservatives available for the purpose, one of the best being a good-quality coal-tar creosote. This is suitable when the timber is not going to be subsequently painted, and if applied hot will penetrate much better. Various proprietary preservatives are prepared from tar oils, and these are cleaner and possess a less pungent odour than ordinary creosote, but are more expensive. When there is a danger of creosote coming into contact with paint or plaster, or its odour is undesirable, as in the vicinity of food, a water-soluble or solvent preservative should be employed. Suitable mixtures include 6 ounces of commercial grade sodium fluoride dissolved in a gallon of water, or 8 ounces of acid magnesium silico-fluoride per gallon. The latter is particularly useful for treating infected brick or stone work, but it will corrode any glass or metal which it contacts. Timber treated with either of these solutions may be painted over when it has dried. For cases where the use of tar-oil preservative or an aqueous solution must be avoided, a preservative may be used comprising a toxic substance such as pentachlorphenol or copper naphthenate, dissolved in white spirit or solvent naphtha.

In all cases it is vital that the source of damp responsible for the rot be located and removed. Efforts should be made to improve the circulation of air around the timber and to increase the ventilation as much as possible. The insertion of additional air vents in the external walls is especially advisable. The installation of a central heating system will assist in drying out the building and preventing further outbreaks, but under no circumstances should untreated timber be used in a school where there has been a dry rot attack. Finally, it should be emphasised that dry rot generally exists in a school where the air is excessively damp and consequently unhealthy to live in.



A cut-away section of this floor has brought to light an attack of *Merulius Lacrymans* at the joists. The growth has not advanced sufficiently to crack them yet, but root strands are already penetrating the brickwork.

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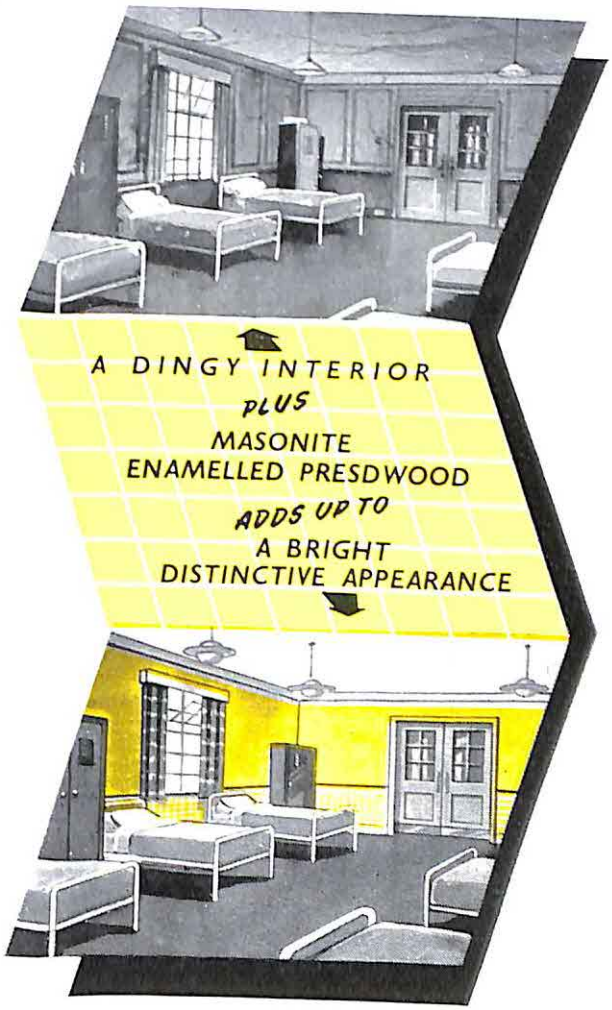

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Dr. Arnold of Rugby*

ANYTHING about Dr. Arnold is well worth a headmaster's reading; a new book, the author of which has had access to unpublished material, is an event. If headmasters were given prizes, Mr. Wymer's book is the obvious choice for this year. If headmasters were set holiday tasks, here again is the obvious prescribed reading.

Mr. Wymer's account of a headmaster of immense energy and zeal, a man with "a God-intoxicated sense of direction" is most stimulating. Arnold, for not very clear reasons, has been credited with more reforms and innovations than are, perhaps, his due. Even that masterly discovery in school management—that boys can be used most effectively to rule boys, the prefect system—for which Arnold is so often credited, was first introduced by Butler at Shrewsbury. It becomes clear from Mr. Wymer's book that it doesn't matter quite so much as some of us are inclined to think what changes, what reforms a headmaster plans; what does matter—and Arnold had this quality to a magnificent extent—is his drive. Let a headmaster be a scholar, a good preacher, understanding men and knowing what can be made of boys, but those qualities avail his school little unless he is dynamic. How dynamic, how able in his methods Arnold was is made manifest in almost every page of this book.

Add, too, the quality of what some would call luck. "Tom Brown's Schooldays" and a son who can write a poem such as "Rugby Chapel" don't come every headmaster's way. Arnold, long before his death in 1842, was a figure, larger than life-size. One always has pity for the men who succeed great and famous headmasters; they labour under even greater disadvantages than the sequels to famous books. Who cannot feel for Tait, appointed to succeed Arnold, receiving a letter from Stanley, Arnold's biographer: "Dear Tait,

The awful intelligence of your election has just reached me . . . I have nothing more to say than that I conjure you . . . to lay aside every thought for the present except of repairing your deficiencies . . . Read Arnold's sermons. At whatever cost of orthodoxy (so called) throw yourself thoroughly into his spirit. Alter nothing at first. See all that is good and nothing that is bad in the masters and the Rugby character."

To follow a great and successful headmaster, as some of us know, can be worse than marrying a widow.

Arnold had approached his office in the spirit of his well-known saying: "The business of the schoolmaster, no less than that of a parish minister, is the care of souls." "Is this a Christian school?" he once asked, indignantly, at the end of one of his addresses, and added: "I cannot remain here if all is to be carried on by constraint and force; if I am to be here as a gaoler I will resign my office at once."

That was a new voice in the 1830's.

Equally interesting as Mr. Wymer's account of Arnold as the headmaster are the glimpses he gives us of Arnold's home life. That is something headmasters find it hard to have. It is challenging to sense the air of spaciousness and leisure about the life of the Arnolds and remember the doctor's energy and drive within the walls of Rugby School. Here is the lucky man who had everything.

* *By Norman Wymer. (Hale, 21s.).*

"The Gatehouse Arithmetic" for Primary Schools

By W. R. Gatehouse and Doris Bass. (Cassell and Co. Ltd.)

THIS is a set of five small books, each one, presumably, designed to cover a year's work at the primary school. They appear to be an up-to-date version of an older and well-tried series with a definite aim in view—to encourage individual work among a group of children rather than to rely on mass-production methods.

The basic idea behind this set of books is to provide the means for the orthodox methods of class teaching, combined with opportunities for individual work. The general layout is attractive, including as it does many coloured diagrams designed to interest the child and, at least, in the first books, the type is large and clear. A great deal of care has been given to the grading of examples although many practising teachers will undoubtedly consider that there are not sufficient examples on the basic principles of addition, subtraction, multiplication and division.

Without hesitation I say that the "Gatehouse Arithmetic" is an excellent series for the really bright pupil.

H. F. W.

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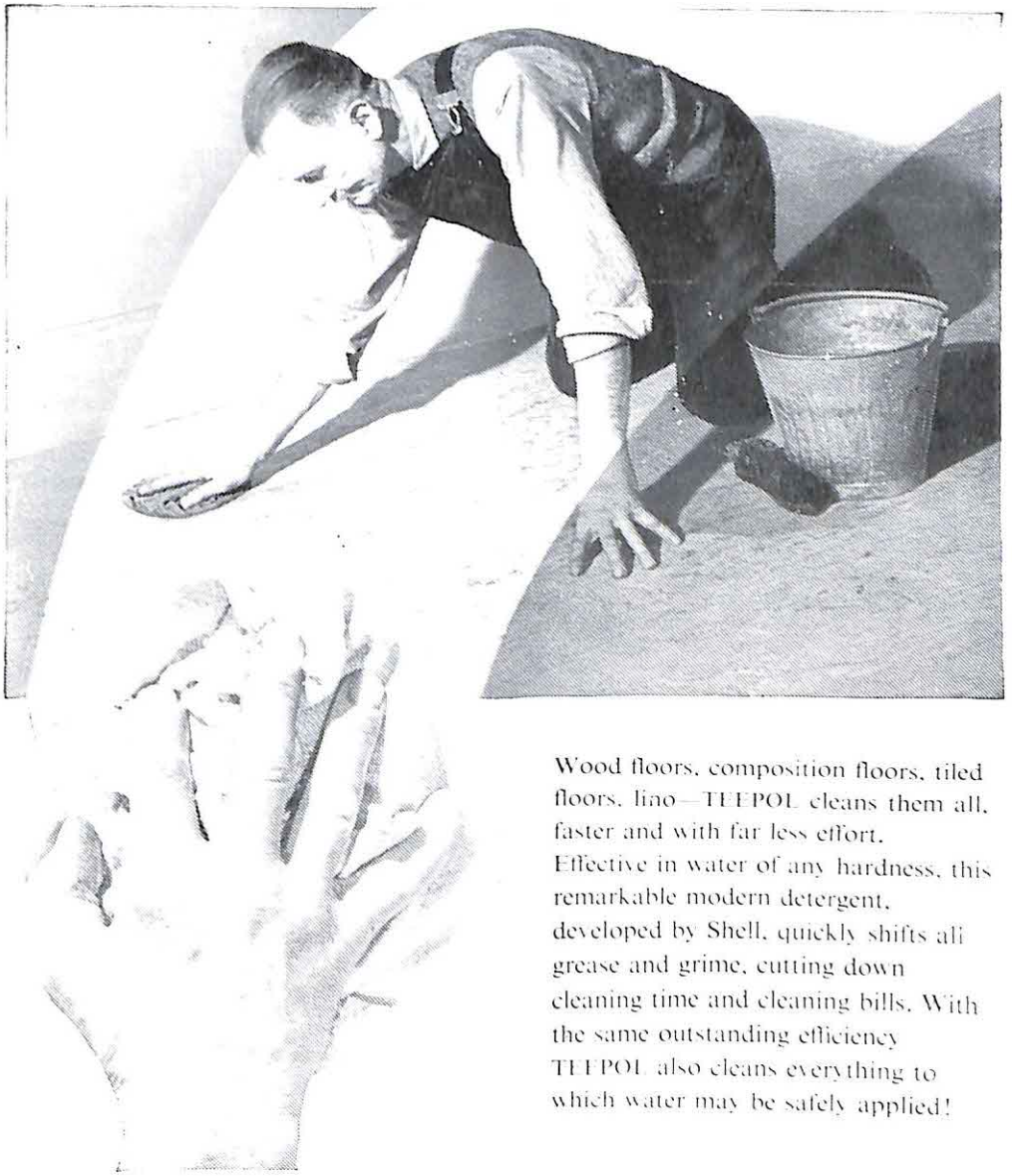

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The cost of SCHOOL BOOKS

ALTHOUGH school books have not, in actual fact, increased in cost since the war to the same degree as most other things which rank as essentials in a school, they cannot be said to be cheap and their provision accounts for a formidable item in the annual budget. Most independent schools still pass on the cost of a pupil's books directly to the fee-paying parent or guardian and, in easier and perhaps happier days, that device usually served to solve the problem. Nowadays, however, it is almost as necessary to keep down the "extras" as it is to stabilise fees at a reasonable level and, therefore, the annual cost of the books provided for each pupil must be kept under constant review.

How can the cost of providing books be kept down to reasonable levels without handicapping the pupils and without rendering the work of the teaching staff more difficult?

In schools where the headmaster or headmistress is the proprietor or, if not the proprietor, is responsible to the governors or proprietors for all expenditure, it is usual for the books bill to be smaller than in schools where a bursar or some person with similar duties has to pay for books selected by the teaching staff and ordered through the school office. The bursar, not being in a position to know which books are essential and which are not can, at best, only make a protest about what he regards as excessive expenditure on books to the headmaster or headmistress who, nine times out of ten, will not unnaturally support the demands of the teaching staff. Being on the academic side and not having the personal responsibility for making ends meet, the head will most likely hold the opinion that, if economies must be made, they could better be made in some way which will not directly affect the teaching work of the school. So the poor bursar shrugs his shoulders, pays the bill and looks anxiously into the prospects of saving somewhere else.

When, however, the head is personally and directly interested in balancing the school budget the requests for books are scrutinised by one who is in a position to know what can be struck off the list without damaging effect, and as a result considerable economies usually result. Sometimes, when the head is the proprietor, the process is carried too far; teaching efficiency suffers and the staff become resentful; either result can turn an intended economy into a source of major loss.

What, then, is the best course for a school to adopt in regard to the ordering of books? It is suggested that the best solution of the problem in *any* type of school is for the head to appoint an experienced senior member of the teaching staff to be "In Charge of Books." Such an individual has no personal incentive to save on the provision of books and yet, being an experienced teacher and a man or woman of mature judgment, he or she can and usually will exercise a restraining influence on colleagues who tend to be extravagant in their book requirements either by asking for unnecessary books or for the over-frequent changing of series. If there be a bursar, that official can negotiate on easier terms with an assistant than with a head and a compromise agreement can usually be achieved. If the school is one where the head is the proprietor the arrangement can still work well because the head can give the assistant a figure per form, per term, which must not be exceeded.

The assistant knows he must not go beyond that figure but, unlike the proprietor-head, he does not suffer a natural temptation to get as far below the maximum as possible. In other words, the assistant will probably work closely to the maximum figure which, in all probability, is about the minimum which will provide what is necessary. Comparatively few proprietor-headmasters or headmistresses would risk crippling the teaching efficiency of their schools by excessive economy over books, but the possibility exists. More common is the conscientious proprietor who, rather than risk injuring the teaching efficiency of his or her school, is rather over-liberal with books and is forced as a result to allow the school to go short of other essential equipment. The appointment of a senior assistant to look after books tends to insure against both risks.

Who Orders your School Books?—

Asks E. O. Giffard, O.B.E.

The setting up of class and school libraries helps to make possible the provision on a very moderate scale of expensive reference and supplementary books which many schools could not possibly afford to purchase in large quantities; sometimes two or three copies of a valuable but costly book can be made to serve the needs of twenty or thirty pupils. Likewise, where projects form part of the teaching routine, the formulation of syndicates of pupils will often provide opportunities for economies without detriment to the pupils or their teachers. For example, there is a well-known book now in use in many schools which provides spaces for the pupil to enter details and particulars which he or she has gleaned from enquiries made as part of a series of local studies. If each pupil were to be provided with a copy the cost might well be regarded by many independent schools as prohibitive but, if the pupils were set to work in syndicates of five, six copies of the book in question would suffice for a form of thirty pupils and each one of those thirty would get at least 90 per cent of the educative value of the book in question.

The book which it is essential to provide for every pupil is the atlas and, partly because of its size, this is a book which suffers more, perhaps, than any other at the hands of the pupil. If the school is wholly or largely a day school, the atlas will suffer more than will be the case if the majority of pupils are boarders because it will frequently be crammed into a satchel which is probably too small for it or carried, exposed to wet and wind, in the hand or under the arm. In that case it is a virtual certainty that, sooner or later, it will be used either as a weapon of attack or as a shield for defence and the effect on the atlas will be about the same in either case. It is also almost a certainty that it will be used as a portfolio and all kinds of papers, pictures and even exercise books will be forced between its covers to the detriment of its binding and the inevitable mutilation of its pages.

In the boarding-school the best way to avoid damage to atlases when not in use is to keep them in a cupboard in the classroom. If required elsewhere (say for "prep") a monitor or prefect can be sent for the atlases and can be made responsible to hand them out and to collect them later and return them to the place where they are kept. In the day school the problem is not so easily solved but one form of insurance against unnecessary damage is to make compulsory the use of a satchel large enough to take the atlas and to make it a rule of the school that atlases are invariably to be carried inside the satchel. Another possible precaution is a ban on the use of the atlas as a portfolio and the inspection of atlases at irregular intervals without notice.

Some purchasers of school books still make the mistake of preferring cheaply-bound class books to the better bound variety which cost from sixpence to a shilling more per copy. In the long run the cheaply-bound class book is definitely the more costly as replacement copies have to be purchased much more frequently. True economy is to buy well-bound class books, especially books like arithmetic and English books which are used almost every day. Library copies must also be well-bound if they are to last because they are handled by many users. There is, however, a class of book which is not often worth a durable binding and yet, oddly enough, purchasers frequently insist on a good binding for this type of book and readily pay more for it, thereby wasting money. The numerous multi-number series of "readers" which schools now use in great quantities come within this class. Each book in a series of this kind is normally read only once by a class. After the class has read the book in question it is returned to the cupboard and usually remains there until a new class moves in. Such a book may, therefore, be handled only for a week or a fortnight in a year. Paper backs are good enough for this class of book and cloth bindings are an extravagance.

Although distinct from books, wall maps and charts used in the teaching of history, geography, biology, etc., are included in the school book bill but these items must be paid for by the school, and their cost cannot, even in private schools, be passed on directly to the parents as part of the "extras." Many schools incur additional expense on these items by failing to provide proper storage space for them whilst not in use so that they get damaged every time they are put away or taken out.

In some schools these maps and charts are left hanging on the walls where they fade and crack and collect dust and dirt. It is a real economy to provide a map cupboard with the same kind of fitting as one finds in an up-to-date gentleman's wardrobe so that the maps can be hung flat, one against the other, but protected from dust and dirt and saved the wear and tear of frequent rolling up and unrolling. Apart from the provision of a plywood

cupboard of adequate depth with a rail fixed inside a few inches below the roof, the only necessity is to provide the top batten of each wall map or chart with a brass screw-in hook. The total initial cost might be six or seven pounds but, over a period of years, this sum would be saved many times over. Were the plywood cupboard made in the school carpenter's shop the initial cost would, of course, be very small indeed.

Some schools adopt the policy of buying second-hand class books whenever possible and the war-time and immediate post-war shortages of new books tended to encourage this method. It is doubtful, however, whether this results in economy in the long run. The principal objections are as follows:—Firstly, second-hand books are definitely used books and, though they may look in good condition, bindings have been submitted to strain and it is impossible accurately to assess the remaining life of such books. Moreover, the sources of such second-hand books are limited. Some come from schools which have closed down but the majority have been discarded from schools still functioning. Why were they discarded? Probably because they were unsatisfactory in some way or were obsolescent or even obsolete from the point of view of presentation or teaching theory or even from the point of view of factual content. Few schools discard sound and usable books and that indisputable fact makes the purchase of second-hand books a somewhat dubious policy.

The foregoing suggestions represent only some of the ways in which the over-all cost of books and maps and charts may be kept down to reasonable levels without harm being done. Other means of ensuring wise economy surely exist and will suggest themselves to those who seriously think about the matter. Various stratagems may also be employed by the teaching staff to encourage the pupils to take care of their books, such as the offering of special form prizes for the best-kept set. These, however, are matters for the head and the teaching staff rather than for bursars and others engaged solely on the administrative side.

One thing is certain and that is that schools in which there exists full co-operation between the teaching and the administrative sides *can* keep down the cost of books to reasonable levels without detriment either to pupils or staff and can do so without adopting measures which would ultimately harm publishers and booksellers and discourage authors. This last-mentioned consideration is worth a little emphasis. Apart from the fact that, in a highly organised and complex society, it cannot be a good thing for one sort of useful enterprise to harm any other useful enterprise, the fact has to be remembered that, if schools were to carry book economies *too* far and publishers and booksellers could not sell books in reasonable quantities, the result would be that fewer firms would publish fewer books and those books which were published would have to be sold at very much higher prices than those ruling to-day. Too drastic a curtailment of book purchase would, therefore, defeat its object for so long as there are schools there must also be books.

Verdict on the Education Act—*continued*

Colleges" are now generally regarded as a dead letter. One has only to read the First Report of the National Advisory Committee on the Employment of Older Men and Women to realise the grave situation which would result from raising the leaving age to 16 and instituting compulsory part-time education to 18. By 1962 there will be 300,000 fewer men between 14 and 40 and 450,000 fewer women while the number of people aged 50 to 60 will grow by one-sixth!

Lastly, one must mention Part III of the Act. Repeated enquiries have been made regarding the date when the provisions relating to independent schools will be brought into operation. There is at present no sign whatever that Part III will ever be implemented. The Minister has caused thousands of private schools to be inspected which had never seen an inspector before. This action, however, was taken under the general powers of inspection given to the Minister under Section 77, which give her power to cause *any* "educational establishment" to be inspected. Already one of the great political parties, which will undoubtedly rule this country again, has made proposals which would involve the repeal of Part III.

They propose the elimination of *all* independent schools, public and private. They seem further to imply the confiscation of endowments and the seizure of buildings belonging to educational charities. Even choir schools, the special pride of this country, would be suppressed. There would, indeed, be a national upheaval comparable with the suppression of the chantries, hospitals and schools and the dissolution of the monasteries in the sixteenth century.

Inexpensive Novelties for the School Garden

By W. E. SHEWELL-COOPER, M.B.E., N.D.H., F.R.S.L.

IN gardens there have been great activities this year and again and again the writer has been asked to suggest something new. There certainly are a great many plants which one can grow that are almost unknown to the common public. It may be worth while, therefore, reviewing the position and trying to keep to inexpensive plants as well as types which can be raised easily from seed.

I should like to recommend the new calendula, "Rays of Sunshine." This is said to be a very careful selection of the loose-petalled, long-stemmed Australian variety. It certainly makes this calendula different, for it has much more of a chyrsanthemum-like effect, both as regards its stems and flowers. It produces blooms of different colours ranging from creamy primrose to deep orange. Within the range there are invariably a number of beautiful salmon and buff shades. Try it as a massed effect and use it, too, as a cut flower and you will not be disappointed.

Those who know Hilterfingen on the slopes above Lake Thun will know that there the Roggli family have produced the most wonderful pansies. I suppose there are few plants which have a greater tendency to revert than these, and you have to go on for 8 or 9 years before you can say that you've firmly fixed a new variety. It is now possible to obtain in this country the special seeds of these "delicious" varieties. Take "Blumisalp" for instance, which is a mauve-pink with a dark centre, or "Thunersee," a gentian blue with a bluer centre, or "Alpengluhn," the garnet red with a darker centre, or even try "Niesen" with its back petals brilliant red and the smaller petals golden yellow, plus a brown centre. There's a lot to be said for a complete bed of these wonderful pansies.

One hasn't to go quite so far in one's thoughts to the "Calvary Clover" or "Crown of Thorns." This is certainly a hardy annual whose yellow flowers are followed by very striking seed capsules. It only grows about six inches high and the seeds being tiny should only be sown about an eighth of an inch deep. When the baby seedlings are seen, they are thinned to six inches apart. If the weather is dry much water has to be given. It has been called the Calvary Clover because in the centre of each leaflet there appears a spot, as of blood, while in addition the prickly fibre of the seed capsule when unrolled does resemble the "Crown of Thorns."

Blues are always popular and there's a plant which resembles the forget-me-not and yet lasts far longer in flower. I refer to the *Cynoglossum amabile compactum* "Firmament." This particular variety seldom grows higher than about 15 inches and in the lighter soils will keep to a foot. Its great advantage is that it can be grown either as an annual or a biennial. Nobody can possibly grumble and say that the seed is dear to buy.

Everybody knows the good old-fashioned sweet william, but few realise that there's a wonderful little compact and dwarf type which doesn't exceed five or six inches in height and yet will present all kinds of colours, and showy ones at that, with a uniform level. The idea is to put the plants out 12 inches apart and so to produce a gorgeous carpetlike effect. If planting, for instance, is done in the spring, the show goes on well into the early summer. Ask for the *dianthus barbatus* "Indian Carpet." You will get all kinds of colours in this and practically all the flowers will be auricula-eyed.

The petunia is certainly coming back into its own. It is seen more and more in gardens and especially at the seaside. Those who've been to the South of France and have driven from Cannes to Nice may have seen the wonderful flower farms of Monsieur Morel. For years now he has specialised in petunias and especially in *P. Superbissima.* This may be described as the aristocrat of all the petunias for the flowers are always extravagantly filled and I've never seen larger. The colouring is extremely beautiful. When you see those big trumpets, often five inches across, growing on plants which are only three feet in height, you begin to realise what careful

selections Monsieur Morel has made. There's a red with a darker throat, there's a copper, there's a salmon, and there's a pure pink, all of which have dark frills. He has, in addition, a lovely semi-dwarf bedding petunia which is very long-lasting. There's no need to write abroad for the seeds, special arrangements have been made for them to be available over here.

One of the most beautiful flowers that Queen Mary embroidered into her wonderful carpet was the dwarf convolvulus. It made a wonderful show again at Sandringham last year. There's an entirely new break of this very pretty annual known as "Royal Marine." It's a dwarf, for it never grows higher than six inches or so. You can use it in front of a border, or you could even have it in the rock garden. You certainly don't need to be a skilled gardener to have it, for it seems to grow and flower freely almost anywhere. It produces rich royal blue flowers in abundance. In fact, if you don't do it too well, there are more flowers than leaves. A shilling packet of "Royal Marine" will go a very long way.

The name "godetia" is known to most people as an easy-to-grow annual, and one which is rather tall and which needs support. It has never been very easy to grow godetias perfectly in the open because of their natural "fluffiness." There's a dwarf godetia, however, which has made all the difference in the world. It's no wonder that it received an Award of Merit from the Royal Horticultural Society. It doesn't grow taller than nine inches; the flowers are a beautiful shade of lavender. They have paler centres to them, plus black anthers. The plants are almost ball-shaped and the foliage being very narrow—once again you see more bloom than leaves.

It's the Clary sage that is much used by the distillers of our best perfumes, and I've met with it both abroad and in this country. I believe it's the salvia "Sclarea Vatican" which is usually grown. For an Oxford blue there's a variety called "Bluebeard" which should be tried. It only grows 18 inches high and in a 4d. packet you get 65 seeds. Here you get the coloured leaf-like bracts on the top of a stem; the housewives love it for indoor decoration, and in this particular strain the very broad bracts are of Oxford blue.

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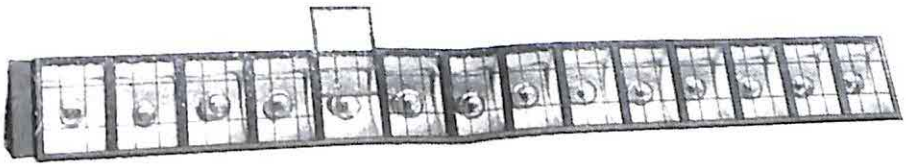

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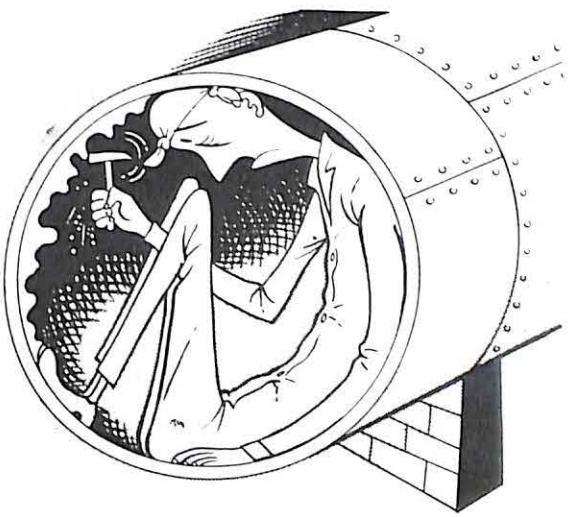

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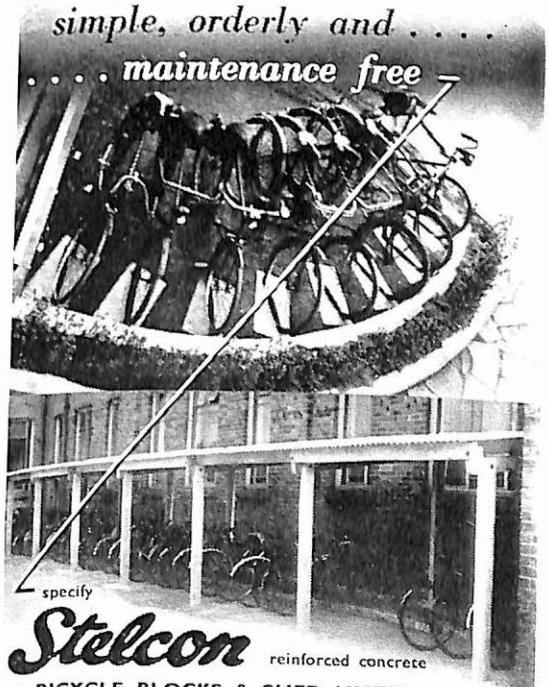

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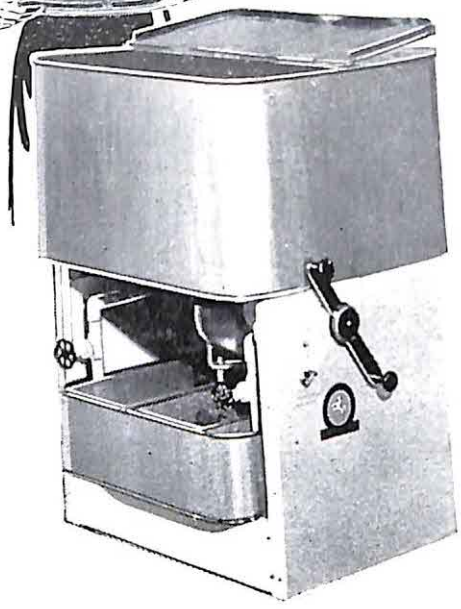

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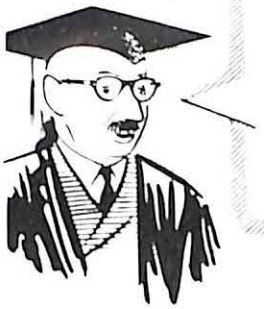

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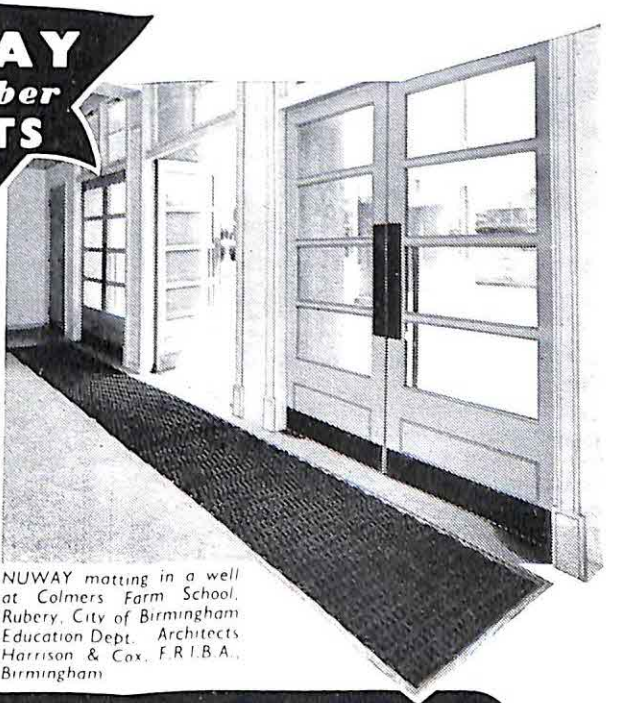

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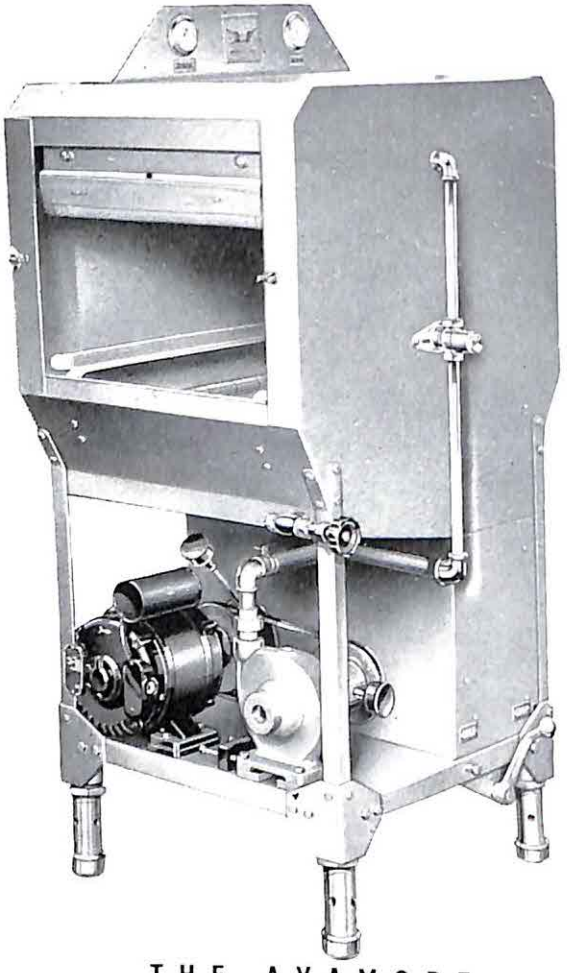

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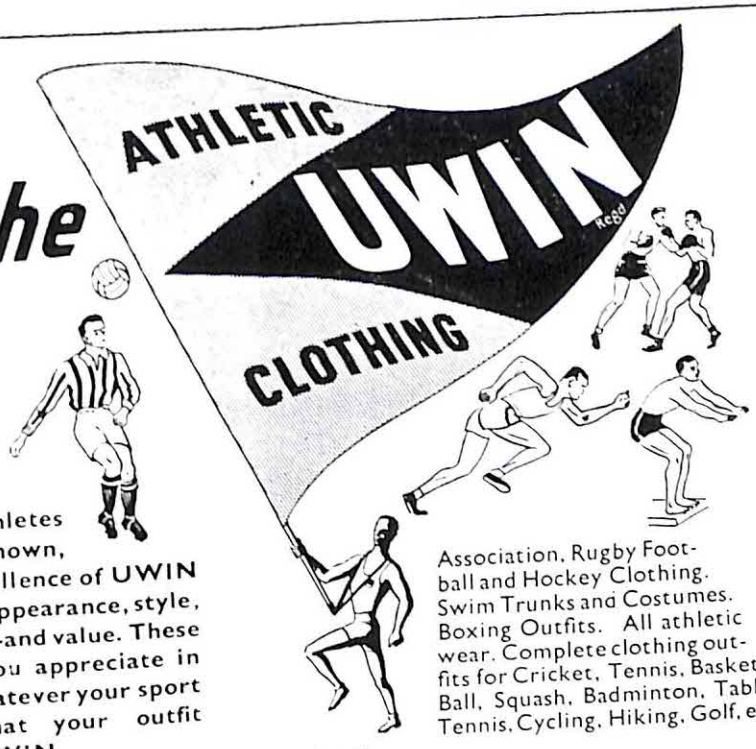

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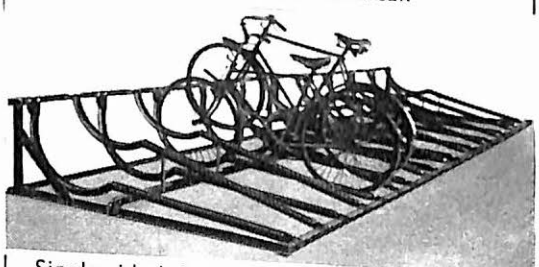

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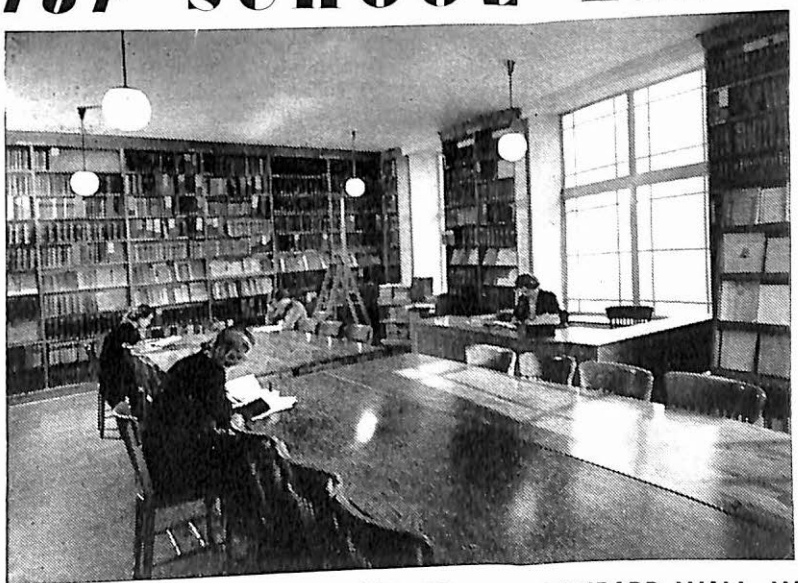

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